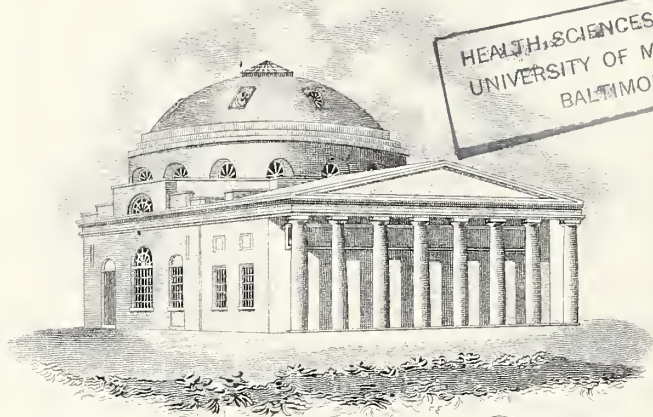


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THE MANAGEMENT OF ABORTIONS*

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To present a coordinated discussion of this subject would require consideration of all varieties of abortion. Any complete discussion of the subject obviously is impossible in the space allotted for this presentation. We have, therefore, reduced to outline form features of the various types of abortion, and plan to consider in detail the more important problems encountered. Any classification of abortion would include the following types: Habitual, threatened and inevitable, missed, molar, complete, and incomplete abortions.

HABITUAL ABORTION

Habitual abortion is not a common clinical entity but may upon occasion require medical attention. It is generally diagnosed in a patient who has had more than two spontaneous sequential abortions where no obvious cause can be found. Such abortions are due primarily to abnormalities of the embryo in which both the husband and wife share responsibility. The treatment of such patients obviously should begin before conception and is designed to improve the quality of the germ cells that will contribute to the ovum. As a general rule, systemic and metabolic considerations are more important than endocrine, and, except for thyroid which may be used as a general metabolic stimulant, endocrine therapy plays a minor rôle in the management of these patients. If a normal embryo can be obtained, treatment during pregnancy is relatively unimportant. Bed rest and thyroid are recommended until the pregnancy is well into the second trimester.

THREATENED AND INEVITABLE ABORTION

Threatened abortion is a common clinical entity. Since we are unable to predict the outcome of any threatened abortion, it has been impossible to catalog or classify this clinical condition satisfactorily. Any early pregnancy which presents

bleeding and/or cramps is considered as a threatened abortion. These symptoms are due to a variety of causes, the most common of which is the continuance of menses around a pregnancy. These patients do well without treatment. If the symptoms become more serious and an abortion occurs, this is usually due to an abnormal embryo. Systemic diseases will occasionally interfere with the development of pregnancy. We have all seen patients in whom emotional and/or physical shock or trauma have precipitated abortion. Uterine disorders and irritability are given a high place in the etiologic considerations of this condition; yet we believe they are relatively unimportant. When the uterus is at fault, it is more apt to be due to a failure of conversion of the secretory endometrium to decidua. We believe this conversion to be entirely the function of the conceptus and its growing trophoblast, and not a function of progesterone. If progesterone plays any rôle in early pregnancy, it is in the preparation of the endometrium for implantation, and perhaps in the support of the converted decidua.

Uterine cramps and bleeding are the signs of abnormality; not the cause. Do not forget that many patients presenting a history of threatened abortion have had an attempted induction.

Fortunately, most patients with threatened abortion go on uneventfully to term, in which case any management which is prescribed will be effective. This accounts for the great variety of remedies for this condition. Most of the medicaments commonly recommended for threatened abortion, such as wheat germ oil, belladonna, and progesterone, are given for the benefit of the family and to be "doing something." Bed rest is probably the most significant advice we can give these patients. The addition of thyroid as a nonspecific metabolic stimulant and possibly to assist in the maintenance of the decidua may be of some value.

Threatened abortion offers no real problem as such. The pregnancy will either go to term despite our therapy or become an inevitable abortion and terminate itself. The only clinical problem

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is the recognition of what constitutes an inevitable abortion, for it is useless to continue a regimen for threatened abortion if the patient has lost all possibility of carrying the pregnancy to a fruitful termination. The following factors may be useful in establishing the diagnosis of inevitable abortion: A threatened abortion which shows (1) effacement of the cervix, (2) more than two centimeters of cervical dilatation, (3) rupture of the membranes, (4) bleeding for more than ten days, (5) the persistence of cramps despite morphine, and (6) signs of fetal death such as regressive breast changes, absence of a previously heard fetal heart beat, and a negative biologic test. If two or three of these clinical observations are present, one should abandon treatment for threatened abortion and empty the uterus by the most conservative means at one's disposal. Ordinarily this would be by the use of an oxytocic. If this fails, the mechanical evacuation of the uterus by curet or ovum forceps is in order.

Do not persist too long in the medical management of threatened abortion. Most of these embryos are abnormal and sooner or later you will have the misfortune of prolonging a grossly abnormal pregnancy to the patient's disadvantage and your own embarrassment. Threatened abortion and inevitable abortion offer the same complication as any abortion; namely, they may become incomplete requiring further treatment.

MOLAR ABORTION

Molar abortion is a less common clinical entity, but because of its grave possibilities it warrants at least a passing comment. It is always due to a diseased ovum.

The diagnosis of molar pregnancy is not easy but should be suspected in a patient with a history of pregnancy and an attempted or partial abortion. The uterus is usually disproportionately enlarged for the probable duration of pregnancy. There are no signs of fetal life or development as determined by palpation or x-ray examination. The biologic test is usually positive, although occasionally it may be negative. Frequently the patient will pass one or more hydatids which confirms the diagnosis. Pelvic examination reveals the cervix to be dilated. The vaginal discharge is apt to be bloody fluid rather than blood.

The management of molar abortion has been standardized. The uterus should be emptied by the most conservative procedure, which is usually by an oxytocic. Occasionally it will be necessary to evacuate the uterus by curettement or by hysterotomy. These patients should be followed for approximately one year with biologic tests. If the test remains negative during this period, the pa-

tient can be considered free of the risk of malignancy.

COMPLETE ABORTION

Complete abortions may be divided into those which are infected and those which are noninfected. If the patient shows evidence of infection it usually (not always) signifies that the abortion was induced. Complete abortions are usually found before the sixth week and after the twelfth week of pregnancy. This condition prevails because of the development of the placenta. Prior to six weeks the ovum lies free in a blood lake within the decidua and an abortion is apt to be cast completely together with fragments of the decidua. Between the sixth and the twelfth weeks of pregnancy, the chorionic trophoblast is invading the decidua for purposes of nourishing and anchoring the pregnancy. This invasion progresses at irregular rates so that portions of the trophoblast may penetrate deeply into the decidua basalis and thus be left behind during the abortion. After twelve weeks the placenta has essentially matured and its separation follows the usual mechanism seen at term.

Examination of the material passed at a complete abortion will usually reveal a fairly complete ovular specimen. The uterus is firmly contracted and not bleeding profusely. These findings establish the diagnosis of a completed abortion. If the lochia is normal and there is no tenderness or pain in the pelvis, the temperature is normal, and the white blood count is under 15,000, we may assume a diagnosis of noninfected complete abortion. Such a patient requires no special therapy, and a few days of bed rest is all that need be advised.

On the other hand, if the lochia is foul and there is pelvic pain or tenderness, fever and tachycardia, and the white blood count is over 15,000, the diagnosis of infected complete abortion is in order. Since the uterus is empty, the management is directed entirely to the control of infection. Intra-uterine manipulation is never indicated. Treatment should be directed to confining infection to the pelvis by the use of bed rest, semi-Fowler's position, intravenous fluids, sedatives, and the avoidance of cathartics and enemas. The patient should be supported by small transfusions of 200 to 400 cubic centimeters of blood every twenty-four to forty-eight hours; in the presence of anemia, the first transfusion should be 400 to 600 cubic centimeters of blood. If bacteriologic culture of the genital infection is possible, appropriate chemotherapy should be started. In the absence of such assistance, sulfathiazole or sulfadiazine may be employed. The drug should be pushed

THE MANAGEMENT OF ABORTIONS

Etiology	Habitual Abortion	Threatened Abortion	Inevitable Abortion	Molar Abortion	COMPLETE ABORTION		INCOMPLETE ABORTION		
					Noninfected	Infected	Noninfected (under 24 hrs.)	Potentially Infected (over 24 hrs.)	
					Usually spontaneous. See threatened abortion	Usually induced	Spontaneous or induced	Usually induced	
Disease of embryo 1. Embryo a. Ovum b. Sperm 2. Endometrium a. Ovarian b. Systemic	Disease of embryo 1. Embryo a. Ovum b. Sperm 2. Endometrium a. Ovarian b. Systemic	Pathologic embryo Systemic disease Uterine disorder Endometrium Emotional-physical shock or trauma Induced	Same as threatened abortion	Diseased embryo	Duration of pregnancy Under 6 wks. Over 12 wks. Specimen complete Contracted uterus Not bleeding Lochia normal No tenderness or pain Normal temperature W.B.C. under 15,000	Duration of pregnancy Under 6 wks. Over 12 wks. Specimen complete Contracted uterus Not bleeding Lochia normal No tenderness or pain Normal temperature W.B.C. under 15,000	Duration of pregnancy Under 6 wks. Over 12 wks. Specimen complete Contracted uterus Not bleeding Lochia normal No tenderness or pain Normal temperature W.B.C. under 15,000	Same as non-infected abortion But is more than 24 hours old	Any stage of pregnancy Incomplete specimen Boggy bleeding uterus Lochia foul Pelvic tenderness Leukocytosis Fever and tachycardia Toxic and prostrate Late, may show Pelvic exudates Metastatic abscess
Clinical Findings	More than 2 spontaneous abortions No obvious cause	Pregnancy, plus Bleeding Cramps	Threatened abortion with 1. Effaced cervix 2. 3 cm. + dilated 3. Ruptured membrane 4. Bleeding 10 days + 5. Persistent cramps despite morphine 6. Signs, fetal death a. Breast changes b. Cessation F.H.B. c. Neg. A.Z. test	Suggestive history of pregnancy and abortion Disproportionally large uterus Absent fetal signs Palpation Heart tones X-Ray Very + A.Z. test Passage of hydatids	Duration of pregnancy Under 6 wks. Over 12 wks. Specimen complete Contracted uterus Not bleeding Lochia normal No tenderness or pain Normal temperature W.B.C. under 15,000	Duration of pregnancy Under 6 wks. Over 12 wks. Specimen complete Contracted uterus Not bleeding Lochia normal No tenderness or pain Normal temperature W.B.C. under 15,000	Duration of pregnancy Under 6 wks. Over 12 wks. Specimen complete Contracted uterus Not bleeding Lochia normal No tenderness or pain Normal temperature W.B.C. under 15,000	Same as non-infected abortion But is more than 24 hours old	Any stage of pregnancy Incomplete specimen Boggy bleeding uterus Lochia foul Pelvic tenderness Leukocytosis Fever and tachycardia Toxic and prostrate Late, may show Pelvic exudates Metastatic abscess
Management	Treatment begins Before pregnancy Don't forget male Systemic Metabolic Thyroid Daring pregnancy Bed rest Thyroid Progesterone?	Bed rest Sedation Thyroid Progesterone?	Abandon B. for threatened abortion Empty the uterus 1. Pitocin and/or ergot 2. Curet	Empty the uterus Pitocin Ergot Curet Hysterotomy Follow with biologic test for 1 year	Bed rest 4 to 6 days Watch for complications	Bed rest Semi-Powell's I.V. fluids Sedatives—morphine No cathartics Frequent transfusion 200-400 cc q 24°-48° Approp. sulfa R Oxytocics Ovum forceps Transfuse after 3d day Expectant treatment	Empty uterus by pitocin and/or ergot Under aseptic tech. extract fragments from cervix Do not invade uterus except for exsanguinating hemorrhage until after 3d day If fever develops, pt. becomes infect. ab.	Empty uterus by pitocin and/or ergot Under aseptic tech. extract fragments from cervix Do not invade uterus except for exsanguinating hemorrhage until after 3d day If fever develops, pt. becomes infect. ab.	Since infection extra-uterine, treat infection Do not invade uterus except for exsanguinating hemorrhage under 5 days normal temperature For the infection Supportive treatment Transfusions Appropriate sulfa R Watch for abscess
Prognosis	Fair Depends on etiology	Many go to term May become Inevitable Incomplete	Good	Good—only about 10% become malignant	Good	Fair to good Mortality low but sterility common	Good	Depends on outcome Infected or Noninfected	Fair Mortality high
Complications	None	See incomplete abortion	May become incomplete and require D. and C.	Chorion-epithelioma Toxemia Infection	None—unless infected	Sepsis Metastatic abscess Sterility Chronic P.I.D.	None unless infected		Sepsis Metastatic abscess Sterility Chronic P.I.D.

to the development of an adequate blood level which should be maintained at least three days after the temperature has become normal.

The patient should be watched carefully and examined daily for evidence of toxic reactions to the sulfa drugs, for the development of pelvic or metastatic abscesses, and the presence of pelvic or femoral thrombophlebitis. These complications should be handled by the recognized methods. Fortunately, the mortality rate of infected complete abortion is low. Since we have abandoned intra-uterine manipulation and adopted the free use of transfusions and sulfa drugs, the mortality is chiefly a function of the duration and extent of the infection at the time the patient is first seen. The chief late complications of infected abortion are sterility and pelvic cellulitis, and these fortunately are not too common.

INCOMPLETE ABORTION

The management of incomplete abortion has offered more clinical difficulty than any other complication of pregnancy. More friendships have been broken and bitter epithets hurled in discussion of incomplete abortion than almost any other similar condition. In general, there are two opposing camps each steadfastly supporting its own philosophy and violently opposing any compromise. One group maintains that the uterus should not be invaded, and the other that it should be cleaned out immediately. Both groups have presented statistical evidence to support their points of view. Each group is adamant in the establishment of its own philosophy. Since both groups are able to demonstrate by statistical analyses almost exactly the same percentage of good results, it seems entirely possible that both methods have something to contribute in the management of incomplete abortion. If the good points of both schools of treatment could be recognized and judiciously used, would not our patients profit thereby?

Taussig, in his monograph on abortion says, "The question at issue as I see it is not whether active treatment is preferable to expectant or conservative treatment, but when active treatment is preferable and when the expectant or conservative measures should be employed."

In the chart we have tried to set up the conditions under which it seems justifiable to employ one or the other form of therapy. Incomplete abortion may be divided into three groups: those which are not infected, those which are potentially infected, and those which are infected. They may be sharply differentiated in most cases.

An incomplete abortion is recognized by the presence of a soft boggy uterus, and the persist-

ence of bleeding in an aborted pregnancy between six and twelve weeks of gestation. If such a patient presents a normal temperature (not over 99 degrees), a normal white count (under 15,000), no pelvic tenderness or pain, and the symptoms are less than twenty-four hours old, the abortion may be classified as noninfected and incomplete. These abortions may be spontaneous or induced.

A potentially infected abortion presents the same clinical picture with two exceptions. It is usually an induced abortion and it is more than twenty-four hours old.

The noninfected patient should be managed by the prompt emptying of the uterus by an oxytocic. A short time after giving the oxytocic, the cervix should be visualized under antiseptic technic and any fragments presenting at the os should be extracted. If bleeding persists after a reasonable attempt at chemical emptying of the uterus, the uterus should be evacuated by a dull curet or ovum forceps.

The patient should receive several blood transfusions, be placed at bed rest under oxytocics, and given expectant treatment as employed for the noninfected complete abortion. The prognosis in this group of patients is good and infection is uncommon.

There is no magic in twenty-four hours over twenty-five or twenty-six, yet experience has taught that to deviate from the rule of twenty-four hours is to invite a rapidly rising complication rate. Incomplete abortion of more than twenty-four hours' duration, but in which the evidence of infection is lacking, should be considered as "potentially infected." The uteri in these patients should be stimulated by oxytocics to empty spontaneously; and under antiseptic technic, cervical fragments may be extracted with safety. Except for exsanguinating hemorrhage, the uterus should not be invaded until after two days without fever. If fever develops during this time the case should be classified as an infected incomplete abortion. The prognosis in the potentially infected group is unpredictable for it depends on whether or not the patient is infected at the time when first seen. The case will become either a noninfected incomplete abortion to be handled as indicated with a good prognosis, or an infected incomplete abortion.

The infected incomplete abortion is almost always criminally induced. It may appear at any stage of pregnancy. Examination reveals a boggy, bleeding uterus with a foul lochia; there is pelvic pain and tenderness. The patient presents fever, tachycardia, leukocytosis, and considerable toxicity and prostration. If the abortion has occurred sometime previously there may also be extensive pelvic exudates or pelvic abscesses. The manage-

ment of this condition is well standardized. Since the infection is extra-uterine, our obligation is to treat the infection disregarding the uterus. In the presence of infection one should never invade or stimulate the uterus except for exsanguinating hemorrhage. The infection should be treated as indicated under complete infected abortion: supportive treatment, transfusions, sulfa therapy, with a careful watch for toxic and metastatic processes. Note the absence of oxytocics in the treatment of these patients.

As the patient gains control of the infection, the fever and clinical signs of infection will subside. After five days of normal temperature the uterus may be evacuated mechanically if clinically indicated. The complications of infected incomplete abortion are sepsis, metastatic and pelvic abscesses, salpingitis, and pelvic thrombophlebitis. These complications should be handled by the usual regimens. These patients are frequently left with chronic pelvic infection and sterility.

SUMMARY

In summary, we should like to point out that in the care of abortions, there are only two conditions where confusion is apt to develop, and in which the physician must exercise precise judgment. How long should we continue treatment for threatened abortion, and how can we determine when a threatened abortion has become inevitable? The signs and symptoms of inevitable abortion are not easily recognized, but if more than two of the listed criteria are present the abortion should be considered inevitable. Do not complicate nature's attempts to expel an abnormal pregnancy by interfering too long.

The second point in which careful judgment is required is in the differential diagnosis of the incomplete abortion group. Misjudging the situation and applying the treatment for the noninfected abortion to an infected patient will greatly increase the morbidity and mortality.

If medicine has any claim as a science and an art, it is on the basis of our ability to individualize therapy rather than to insist on routinization of clinical syndromes under one form of treatment. Surely this applies to the management of abortions. Our success in the management of this complication of pregnancy is directly related to our ability to differentiate clinically the various types of abortion and to institute appropriate therapy.

Discussion

Member: I should like to ask Dr. Brown about the use of plasma in the country, where blood would not be available in cases of abortion, in instances in which transfusion would be indicated.

Chairman Plass: May we specify that? Do you mean the infected abortion or the woman suffering from shock?

Member: In any cases in which transfusion is considered and blood is not available but plasma is. I wondered what his idea was about the use of plasma there.

Dr. Brown: That question is not easy to answer unless you consider, briefly, the function of the transfusion. One can say, in general, the function of transfusion is threefold: to combat shock, to control the infection, and to replace blood.

In the replacement of blood, fluids, and electrolyte loss these patients are benefited by the use of any form of intravenous fluid. Blood occasionally is not available, although with modern transportation and Red Cross banks, it is becoming increasingly available. For the patient in shock, plasma has many advantages and one can also use acacia. Intravenous glucose should be given while the plasma or blood is being obtained and prepared.

However in most of those patients, except those in profound shock, plasma offers little more than any other fluid.

The second function of using blood is in its support of, and in combatting infection. In this group of conditions, plasma apparently offers very little. It supplies only the protein elements and, as far as we can determine, the opsonic and phagocytic factors are not present.

For the replacement of blood, only transfusions are immediately effective. Iron and a high protein diet will enable most patients to regenerate their own blood.

Thus, plasma as such would have value only as a fluid replacement element for the support of a failing circulation. I would not expect it to be of much value in combatting infection or replacing blood.

Chairman Plass: Obviously the use of blood in the combatting of infection is not an emergency procedure. I mean you can do that tomorrow or next day and still get good effect.

Member: I should like to ask Dr. Brown to elaborate a little more on pre-pregnancy treatment of habitual abortion.

Dr. Brown: That is a real order. To try to make it as concise as I can, first I should define it. Habitual abortion is said to exist in a patient who presents two sequential abortions without obvious cause. The occurrence of two abortions in any woman is not uncommon, but this is two sequential abortions without obvious cause. These abortions are due, in general, to one of two factors: either abnormalities of the embryo or diseases of the endometrium. Perhaps I should expand that, but I have chosen to leave it as endometrium and subdivided it into ovarian and systemic etiology.

What do we mean by diseases of the embryo? I can list some very obvious factors; a common one

among physicians is exposure to roentgen rays, in which the sperm is sufficiently damaged that pregnancies resulting therefrom habitually abort, or the couple is unable to conceive.

Just as the obvious damage by roentgen rays can be recognized, we may also damage either the ova or the sperm by toxic drugs, by nutritional deficiencies, and by other systemic problems.

When a patient presents herself with a history of two or more sequential abortions, you become obligated to study her medically rather than obstetrically. Investigate the wife and the husband for evidence of blastophthoria. These evidences are not often easy to obtain.

One patient that I had the privilege to see was in a family who had recently dug a new well on their farm. The water and new lead pipe was of such chemical composition that a mild grade of lead poisoning developed and this produced sufficient damage to the sperm that abortion ensued. It is chiefly a medical investigation and the ramifications are unlimited.

As far as the woman is concerned, she may share only half of the responsibility. She has all of the problems damaging the ova that apply to the male. She has, in addition, the problems of her own systemic development which may complicate the development of the pregnancy. We know the effect of hypertension and of chronic nephritis. We know the effect of other systemic diseases which affect the developing embryo, both occult and obvious.

In the last few years we have also become aware of certain, shall we say allergic problems which come under the general heading of the Rh factor in which the union of the sperm and the ova incite abnormal allergic responses to the destruction of the embryo.

I am afraid I have not clearly answered your question, except to point out the great ramifications involved. Such a patient is more a medical problem than an endocrine problem. It is useless to treat her with progesterone, let's say, if she has a damaged fetus to begin with. You must back up and treat this patient before she is pregnant and not after. It is a medical, not an endocrine problem.

There is one exception to that rule, and that is the use of our time-honored and probably only reliable endocrine-thyroid. I believe that thyroid probably does its work as a nonspecific metabolic stimulant involving all tissues, including the ovary and also including the testes. Don't forget friend "Papa". He may be responsible.

Lastly, may I warn you that you may see an increasing number of habitual abortions. In my last post at the University of Nebraska, we had two large shell-loading factories, one for the Army and one for the Navy. A great many evidences of poisoning are developing from the chemicals used in explosives. I saw two abortions which we thought were due to toluene poisoning. We may see a greatly increasing number of abortions on a blastophthoric basis, from occupational hazards.

CANCER OF THE CERVIX*

HAROLD W. MORGAN, M.D., Mason City

The first carcinoma of the cervix I saw after entering active practice of medicine was in a girl twenty-six years of age. She happened to be a member of a religious sect which does not believe in sin and disease but, of course, the cancer didn't know this and kept right on growing. She died about nine months after she was first seen in the hospital. I do not know what treatment was used: if she had any, it was given elsewhere.

In the last two years in Iowa there have been seven deaths from carcinoma of the cervix in patients under thirty years of age, one under twenty-five years of age. There has been one death in a patient between ninety-five and one hundred years of age. A summation of the age grouping in deaths from carcinoma of the cervix reveals that forty-five to seventy is the commonest age period for carcinoma of the cervix. In the first ten months of 1943 there were as many deaths from this type of cancer as in the twelve month period of 1942.

It is well to classify the cervical cancer mostly for prognostic value and to aid in a statistical evaluation of treatment. For ordinary purposes clinical grouping into four classes is most satisfactory, as the League of Nation's classification. Since extensive treatment should be administered irrespective of the group into which the case falls, the grouping of a cancer should not control the amount of treatment given. Group one represents malignancy definitely limited to the cervix; group two includes those in which there is doubtful localization or some extension into the body of the uterus; group three shows definite infiltration of the perimetrial tissue; and in group four these findings are present plus fixation of the uterus, possibly extensive involvement of the vagina, rectum, or bladder. It is sometimes possible to determine the presence of metastasis. Groups one and two may be considered as cases seen in reasonably early stages, and unfortunately very few are seen in these groups. Groups three and four are those most commonly found.

TREATMENT OF CARCINOMA OF CERVIX

The treatment of this condition is fairly well standardized and should be in the average case a problem of proper irradiation. In most cases this is done by the combined use of radium and roentgen therapy, although occasionally only one of these procedures may be used. The time is past when renting a bar of radium and placing it in the cervical canal for a length of time, advised by a

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doctor who has never seen the case or by some radium laboratory, can be considered as adequate treatment. The physical factors used in x-ray treatment with deep x-ray therapy or considered in the placing of the radium about the cervical lesion are as important as the details connected with a surgical procedure. Placing radium in the center of a lesion with the expectation of completely treating the extensions of the lesion is not sufficient. The same amount of radium properly distributed about the periphery of the lesion may mean the difference between a cure and the death of that patient. Radium is effective for a distance of approximately one inch at the most in the treatment of malignant diseases.

If a combination treatment of x-ray and radium seems advisable, experience is necessary in determining which agent should be used first. If the lesion is primarily one of ulceration with relatively little over-growth of tissue, it makes little difference whether radium or x-ray is used first. The local lesion may be controlled by the radium and then the pelvis irradiated by deep x-ray therapy. In cases in which there is a large fungating mass present and in which infection is present, it is inadvisable to use radium at the start of the treatment. A pelvic infection may be lighted up. In most of these instances, if treatment is with deep x-ray therapy carefully administered, the fungating mass will disappear and the infection will disappear either during the course of the x-ray therapy or shortly thereafter. It is then technically much easier to place the radium properly than it is when a large mass is present.

Many doctors now are treating carcinoma of the cervix entirely with roentgen rays. This is done by a combination use of deep x-ray therapy and local irradiation on the lesion of the cervix. A special vaginal speculum with expanding arms is used to expose the cervix and surrounding tissue and the lesion is treated in much the same fashion as an epithelioma of the skin elsewhere on the body would be treated. I have had no personal experience with this method but see no reason why it should not be entirely satisfactory. There is seldom any difficulty in controlling the local lesion with properly administered irradiation. The greatest difficulty is controlling the spread or the metastasis.

Tossig in St. Louis has devised an extensive operation with dissection of the lymphatic glands on both sides of the pelvis and occasionally extends his operation into the abdominal cavity. He has increased the number of cures in these cases by such a procedure. This operation does not displace the use of radiation but rather supplements it.

At this time I should like to make a plea for the

reporting of cancer cases in vital statistics. If we are to have reliable figures upon which to base our plans for cancer control work, the disease should be made a reportable one. As nearly as we can determine, the ratio of cancer cases treated in hospitals to cancer deaths is 1:7. Cancer of the uterus, not exclusively cervix, for the past five years has accounted for a total of 1,515 deaths or 17.3 per cent of female deaths; in other words, one out of every six deaths among women in Iowa has occurred from carcinoma of the uterus.

Diagnosis of carcinoma of the cervix in the average case is easy. Unfortunately these patients usually appear late in the course of their disease. In general there is a fungating mass present in the cervix which has become secondarily infected so that the surface is necrotic and the tissue is extremely friable. It bleeds easily on the slightest manipulation. In other instances the cervix shows deep ulcerations and tissue is destroyed as rapidly as it develops leaving only the ulcer extending into the surrounding tissue. Occasionally a cancer of the cervix will develop high in the cervical canal and not present itself at the os until well established. This type of tumor, usually an adenocarcinoma, fortunately is rare.

Early cases are much more difficult to diagnose and the final diagnosis in most cases will depend upon biopsy. This should be done in all cases. My personal experience with the Schiller test has not been particularly satisfactory. I have seen at least one definitely proved carcinoma of the cervix which took the brown stain with Lugol's solution. If you are conscientiously looking for carcinomas of the cervix, you will find many negative biopsies. In fact, when I was asking for material in preparing this paper one of the surgeons I approached said, "I haven't seen one for a long time; you report all of the specimens I send you negative for malignancy." As a pathologist, let me make a plea for larger biopsies. Do not expect too much of a report on a microscopic piece of tissue. Remove the biopsy from the margin of the lesion, since often the determination of invasion of normal tissue is of extreme importance in the diagnosis, and place it in 10 per cent formalin, not in alcohol.

In differential diagnosis, as a general rule, there are few things which will be confused with carcinoma of the cervix. Syphilis and tuberculosis occasionally may occur but are extremely rare. Ordinarily polyps are not malignant, particularly if attached by a narrow pedicle. They are frequently necrotic and may show gangrenous changes but are seldom of a malignant nature.

In conclusion, carcinoma of the cervix will be found if one bears in mind the possibility of the

condition being present in all patients showing spotting, bleeding, particularly intermenstrual or after the menopause, and where adequate diagnostic measures are undertaken.

As our friend, Dr. Baldridge, used to say, "The most important point in making a diagnosis is to consider the possibility of such a condition being present."

THE USE OF DELAYED BONE GRAFTS IN UNUNITED FRACTURES OF THE JAW*

EDMUND S. DONOHUE, M.D., Sioux City

The mandible is an isolated bone which forms the framework of the lower part of the face. It is suspended from the temporomandibular joint and is held in place, yet made freely movable, by the surrounding muscles and ligaments. The mandible is a strong bone, its structure consisting chiefly of cortical bone. Two factors, however, contribute to its frequent fracture: First, the fact that it is so prominent that it is exposed to trauma, and second, it is horseshoe-shaped so that a blow on the lateral side often produces a fracture.

With an ununited fracture of the jaw there is a definite disturbance in the continuity of the face. There is also an interruption in effective mastication of food, which depends entirely upon harmonious occlusion of the teeth.

The principal etiologic factors of nonunion are: The destruction of nutritional vessels; compound fracture with subsequent infection; loss of bone; lack of contact; presence of tooth roots in the fracture line; inadequate fixation, and metabolic disturbance.

I wish to present two case histories and the technic we are employing on all delayed bone grafts of the jaw. We owe all of our present knowledge on this subject to the effects of Inclan¹ of Havana, Cuba, who in 1941 presented before the academy his preliminary report on the use of preserved bone grafts. This report concerned homologous and autogenous grafts which were kept in citrated blood, saline, or plasma at a temperature of 37 to 40 degrees Fahrenheit for a maximum time of sixty-three days and were used successfully.

The question may arise as to the disadvantage of subjecting a patient to two operations. The added expense of two operating room fees, and a longer stay in the hospital; but the advantages far outnumber the disadvantages in the elimination of shock and cutting down the risk of infecting the

graft bed. If the two operations were attempted at once, much more time would be required. Usually a patient with an ununited fracture of the jaw has spent many months with his jaws wired or wears some sort of splint. As a result the patient does not receive the proper nourishment, has lost weight, and is in a debilitated condition. Such patients are hazardous risks in long operations.

TECHNIC OF REMOVING GRAFT

Any anesthesia the patient desires may be used for this operation: local, intravenous, or general. The usual incision is made over the anteromedial aspect of the tibia with dissection carried down to the bone. A massive bone graft of the desired length and width is then removed, with either a single or double blade saw. Upon its removal it is placed in warm, normal saline solution until hemostasis has been obtained and the wound sutured and dressed. The graft is then transferred to a small glass container with a screw-on lid sufficiently large to hold the graft submerged in plasma. The plasma should be removed from the blood bank about two hours before the operation to allow it to reach room temperature, thus preventing any unnecessary chilling of the bone cells. As an extra precaution, the operator may add some sulfathiazole powder to the plasma to insure asepsis. The bottle and its contents should then be wrapped in sterile draperies and placed in the refrigerator until used, with the temperature being maintained at 37 to 40 degrees Fahrenheit. On the day of operation it is removed from the refrigerator about two hours before it is to be used and allowed to gradually reach room temperature. If there has been considerable absorption of bone at the fracture line resulting from an osteomyelitis of long standing nonunion, the normal length of the ramus is usually shortened. To restore normal length and to produce exact occlusion of the teeth, it may be necessary to wire the teeth before the second operation is done. The wires may be removed immediately after the graft is placed, however, because the graft is strong enough to maintain proper length and position providing the patient exerts the minimum amount of common sense in the activity of the jaw, especially in chewing food.

Intravenous anesthesia is the anesthetic of choice at the time the graft is to be applied. Pentothal sodium is particularly desirable because of its lower toxicity. It may be given in any accepted dilution and there is no contraindication in using it for this operation unless it would be a systemic contraindication. The advantages are numerous: It is easy to give, action is rapid, and there is a complete absence of anesthetist and mask from the

*Presented before the Ninety-Second Annual Session, Iowa State Medical Society, Des Moines, April 29 and 30, 1943.

operating field, thus giving more freedom and a larger operating space for the surgeon.

At the time of the operation the graft is removed from the plasma and washed off in warm, normal saline solution. Draping of the patient is carried out in the usual manner. The incision is made externally parallel to the ramus of the jaw, through the skin and subcutaneous tissues, down and through the masseter muscle. The periosteum is then elevated and all cicatricial tissues and sequestra must be removed. The dissection is carried on down until healthy and vascular bony tissue is encountered. All bleeding and oozing is checked because a hematoma interposed interferes with healing and makes an ideal media for infection. The exact length and width of the graft is then determined and fitted, so that the graft and the bed are in direct continuity. Considerable time and trouble may be saved by having a sterile vise on the table to hold the graft while it is shortened, the end beveled, or the holes drilled for the screws. The size of the drill used on the graft is usually a No. 26 drill; this allows the screws to slip in and out of the drill holes without difficulty. A No. 33 drill is used on the recipient area; the purpose of this is that when these screws become engaged in the bed they have a tendency to pull the graft in tight contact with the bed rather than push it away, which it would do if the drill holes were small enough for the screws to become engaged in the graft. Incidentally, the drill holes in the graft are counter sunk so that the screw heads are on a plumb with the surface of the graft and do not project beyond the graft, since they rarely have to be removed. Usually four screws are all that are needed, two on each end of the graft. The wound is then filled with a gram or two of sulfathiazole and closed in layers.

I should like at this point to mention the important rôle sulfathiazole has played in making this operation more successful. This field is always potentially infected, even if there has been no clinical or x-ray evidence of activity for several months; but the application of sulfathiazole powder greatly enhances the destruction of any organisms lying dormant in the field.

The difficulty has not been in transferring of bone from one part of the body to another but rather in holding the transferred bone in tight contact with the recipient area so that growth will take place.

Various types of fixation have been developed and discarded during the evolution of bone grafting, such as the use of encircling bands of kangaroo tendons, catgut, or wire, none of which held well. Beef bone screws were also tried, but these often acted as foreign bodies, were slow to ab-

sorb, and had to be removed. Miller² in 1939 made one of the most progressive steps in improving fixation with metal sutures, using threaded bicycle spokes to hold massive bone grafts, the end of which protruded through the skin. When healing was complete, they could be removed easily with a chuck. This indeed was a great help but it still had its drawbacks, the same as were encountered in using the original steel screws and plates, namely, that of tissue reaction and absorption.

Our troubles were further alleviated with the introduction of vitallium, which has a minimum tissue reaction. It seldom produced necrosis or absorption and rarely had to be removed. When the alloy vitallium was first placed on the market it had the conventional single slot head. In 1941 O'Donoghue³ described the application of Phillip's head screw to vitallium, which consisted of two slots rather than a single slot and these being at right angles. Several years prior to this Phillip's head screw had been introduced into the automobile industry, to be used on highly polished parts of automobiles. With this type of a screw head, screw drivers were less apt to slip and scratch the metal. The same principle applies to bone work; with the Phillip's head screw the driver is much less likely to slip when it becomes wet with blood and jab into the patient's unprotected soft parts. Actually the aseptic technic is much improved because the surgeon is not apt to use his finger and hand in maintaining the driver on the screw.

I should like to present two cases of nonunion of the jaw in which delayed bone grafts were used, one bilateral and the other unilateral.

CASE REPORT I

The patient, a young boy, had received a fractured jaw in a fight two months prior to the time he was first seen by us. During this time he had been under the care of another physician. Upon examination it was noted that there was a false point of motion in the right jaw at the level of the first molar tooth. A roentgenogram revealed a fracture across the first molar tooth area with a complete nonunion; the first molar tooth was in the fracture line. A diagnosis was made of fracture of the jaw with nonunion. The first molar tooth was removed and x-ray examination showed no osteomyelitis. The patient entered the hospital the following day for plastic repair.

In removing the graft an ether anesthetic was used. An incision was made over the right shin and with the use of a motor saw a graft about two inches long and three-fourths of an inch wide was removed and placed in plasma. The wound was closed in layers and a pressure dressing applied.

A week later the graft was applied, for which pentothal sodium was used as the anesthetic. The right jaw was opened from the level of the cuspid tooth to the angle, with dissection down to the fracture. A definite nonunion was found. It was cleaned with some difficulty and the fracture levered back into place. The previously removed graft was then fitted to this area. Four drill holes were counter sunk in the graft before it was placed and held secure with four one-half inch screws. Bone chips were then packed around the bone plate and the wound was closed with sulfathiazole. The teeth were not wired, but in most cases they probably should have wires applied as a matter of precaution. A roentgenogram taken the following day showed perfect position of the graft and fracture. Six days later a caliper brace was applied to the patient's leg and he was released from the hospital. Two and one-half months after his discharge an x-ray and clinical examination showed practically complete healing, and he was told he would be able to use his mouth for everything except cracking nuts.

CASE REPORT II

The patient was first seen with a complaint of compound fracture of the jaw. He had been in an automobile accident in which he had sustained multiple injuries. A crushed chest had resulted in traumatic pneumonia and he had been desperately ill for some time.

General examination of the patient, a well nourished man, was negative. Examination of the face showed a draining sinus below the angle of the jaw on the left side. There was no induration in this area, no swelling, and not much tenderness. The entire right side of the body of the jaw was markedly swollen, tender, and hard. There was a foul discharge coming out of the right side of the jaw into the mouth and some white bone could be seen in this region. The teeth were wired. X-ray examination revealed a transverse fracture of the left mandible at about the level of the first molar tooth with marked separation of fragments and no evidence of callus formation. On the right side there was a comminuted fracture in the same region with many loose fragments, some of which were apparently dead. There was one tooth in the fracture line. There was no evidence of healing. A diagnosis was made of double compound fracture of the mandible with traumatic osteomyelitis.

The patient was sent to the hospital where the wires were removed, his mouth was opened somewhat, and one loose tooth was removed, together with a small piece of dead bone. The administration of sulfathiazole was begun. Ten days later the patient returned to the hospital. He reported

having removed one sequestrum and there was another presenting, which was also removed.

Plastic repair was not begun until three months later. Then, with the aid of an anesthetic of pentothal sodium, routine removal of the grafts from the right shin was performed. The wound was closed with sulfathiazole and a pressure bandage applied. Five days later the grafts were applied, again with the use of a pentothal sodium anesthetic. An incision was made over the body and angle of the left jaw, with dissection down through the dense scar tissue and masseter muscle to expose the fracture. No evidence of healing was found. The proximal fragment overlapped the distal fragment and there was a vertical downward displacement of the proximal fragment of approximately three-fourths of an inch. The fracture was pried back into its normal position except that no attempt was made to restore the vertical position of the fracture. The bone fragments were then freshened with a chisel, the bone graft used as a bone plate with No. 27 drill holes in the graft and No. 33 drill holes in the mandible, two posterior and two anterior to the fracture line, and then five-eighths inch ordinary machine vitallium screws were used to hold the graft in place. Firm fixation was obtained. The wound was closed with sulfathiazole. The same procedure was carried out on the right side except that on that side there was no displacement found and a small free graft was placed between the fracture bone ends. The wound was closed with sulfathiazole. The patient's postoperative condition was good. A roentgenogram taken the following day showed the grafts in good position. The teeth were then wired and ten days later the patient was fitted with a brace on his right leg and was released from the hospital.

X-ray examination of the patient's jaw three months after his release from the hospital showed complete healing on both sides and the wires could then be removed. A roentgenogram of his right leg revealed that the tibia was filling in satisfactorily and the patient was informed he could remove the brace while he was in the house.

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MASTOIDITIS COMPLICATED BY
SULFONAMIDE INTOLERANCE*

Report of a Case

CARL E. SAMPSON, M.D., Creston

The following case is presented to illustrate one of the hazards encountered in sulfonamido-therapy.

CASE REPORT

Present Complaint: The patient, a girl twelve years of age, was brought to the hospital on the evening of February 11, 1944, by the family physician of her stepfather. The child had contracted a slight cold about two weeks before, had developed an earache, and the following morning her right ear had begun to discharge. After six days the family physician was called from a town twenty miles distant to examine the girl. He made a diagnosis of acute mastoiditis and brought the child in for examination.

Past History: The patient gave a history of having had chickenpox, two types of measles, and, at the age of eight years, scarlet fever. She had been very ill with scarlet fever but had developed no complications. There was no history of a discharging ear previous to the present infection. The preceding September the child had had swollen glands in the neck with a slight fever and had been listless for a period of two weeks. At that time she was out of school several days, and since then has been absent several times from one to three days because she did not feel well. Her mother stated she had never been able to stand what other children could. There was no history of sulfa drugs having been given previously.

Family History: The child's father died from tuberculosis when she was one year of age. The father had been ill with the disease six months before his death; however, the patient had never had a tuberculin test. One brother, sixteen years of age, is apparently in good health. He plays basketball on the high school team. The mother teaches school and the children live with the grandmother.

Physical Examination: On examination one found a well developed, anemic appearing child, rather large for her age. There was a profuse, purulent discharge coming from the right ear. There was slight edema of the superior canal wall and tenderness was elicited on pressure over the process. There was slight edema over the mastoid, which was evident after maintained pressure. The nose showed a little discharge but the throat was negative. The chest was clear to percussion and auscultation. No tenderness or masses were

found in the abdomen. Her temperature was 100.8 degrees, pulse 92, and respirations 24. A complete blood count revealed 5,470,000 red blood cells; 14,250 white blood cells; hemoglobin 85 per cent; 65 segment nuclears; 12 stab nuclears; 6 large lymphocytes; 12 small lymphocytes; 1 eosinophil; 1 basophil; and 3 monocytes. (The patient's red cell count and hemoglobin were in better condition than one would expect from her appearance.) The urine was negative for albumin and sugar and the microscopic examination was negative.

Course in Hospital: With the above count, one felt safe in prescribing sulfonamide drugs; and sulfadiazine administration was started that night in adequate doses. The next morning roentgenograms of the mastoids were taken which revealed extensive and well pneumatized processes. The right process showed some cloudiness and large cells at the tip and along the posterior border. There was no breaking down of the intercellular walls. The child had a comfortable night. The morning temperature was 98 degrees, pulse 100, and respirations 20. During the next three days the temperature varied between 97.6 and 98.6 degrees, the pulse rate from 70 to 100, and respirations from 18 to 28. She was more comfortable, the discharge was less profuse, and there was less tenderness over the process. In spite of apparent clinical improvement, the child appeared more anemic. The following blood count verified this: Red blood cells, 3,610,000; white blood cells, 6,050; hemoglobin 66 per cent; 56 segment nuclears; 13 stab nuclears; 14 large lymphocytes; 9 small lymphocytes; 3 eosinophils; 3 basophils; and 2 monocytes. This picture showed anemia but no granulocytopenia. Sulfa concentration in the blood showed 6 milligrams per 100 cubic centimeters. Sulfadiazine was discontinued and the child was given reticulen intramuscularly. The blood count was checked daily.

On February 21, she had a red cell count of 5,240,000; white count of 9,800; hemoglobin 74 per cent; 68 segment nuclears; 9 stab nuclears; 7 large lymphocytes; 7 small lymphocytes; 1 eosinophil; 1 basophil; and 7 monocytes. This presented a better blood picture, but in the interval clinical signs and symptoms of mastoiditis increased. Surgical intervention, which had been advised earlier, was performed on the following day. Granulations were encountered and pus was released under pressure from the region of the antrum and from the large cells along the posterior border. The process was rather deep anteriorly, but a broad sinus fairly well forward caused the development of a shallow extensive cellular structure posteriorly. No sulfanilamide was placed in the wound

*Presented before the Ninety-Third Annual Session, Iowa State Medical Society, Des Moines, April 20 and 21, 1944.

as has been the custom of the writer for the past few years.

A smear, taken at the time of the operation, showed Diplococcus. No culture was made. The postoperative temperature of the patient rose to 102.6 degrees the following day and the pulse to 130, subsiding to normal by the fourth postoperative day. She was dressed and up in a chair on the eighth day and walking about her room until discharge from the hospital on the fourteenth day. At this time the blood count showed: Red blood cells, 4,810,000; white blood cells, 9,700; hemoglobin, 70 per cent; segment nuclears, 65; stab nuclears, 8; large lymphocytes, 12; small lymphocytes, 10; eosinophils, 2; and monocytes, 3. A tuberculin test was reported as negative and subsequent counts have shown no anemia. Her family physician reports that she has had a rather slow convalescence, but has gained eight pounds in weight.

COMMENT

We have all been using the sulfonamides to good advantage in infections of the ear, nose, and throat, but occasionally we have a patient who is intolerant or sensitive. This case illustrates the necessity for frequent checks on the blood while administering such drugs.

MIDWEST CONFERENCE ON REHABILITATION

The Institute of Medicine of Chicago is sponsoring a Midwest Conference on Rehabilitation to be held in the Grand Ball Room of the Drake Hotel, Chicago, Monday, February 12. This conference precedes by one day the Congress on Industrial Health, under the auspices of the American Medical Association, and will be held in conjunction with that meeting. Cosponsors are the Chicago Medical Society, the Council of Social Agencies of Chicago, the Chicago Hospital Council, and the Midwestern Section of the American Congress of Physical Medicine. Nationally known authorities will participate in the one-day program which will include discussion of the relation of the local community to the Veterans', Federal, and State rehabilitation programs, rôle of industry in rehabilitation, employability of the handicapped, and development of local rehabilitation centers. There will also be a luncheon program with specially invited guests, and the Sixth Frank Billings Lecture of the Thomas Lewis Gilmer Foundation of the Institute of Medicine will be delivered at the evening session. Further details will be announced later. The registration fee will be \$1.00. Requests for programs and registration cards should be sent to the Institute of Medicine of Chicago, 86 East Randolph Street, Chicago 1, Illinois.

NATIONAL CONFERENCE ON MEDICAL SERVICE IN CHICAGO FEBRUARY 11

Postwar distribution of medical care will be the theme for the nineteenth annual session of the National Conference on Medical Service to be held in the Red Lacquer Room of the Palmer House in Chicago, Sunday, February 11, 1945.

Medical legislation, physical fitness program, rehabilitation of veterans, latest word from the Washington front, relationship between labor and farm groups and medicine are among the topics to be discussed by nationally known speakers who will appear on the program. Also listed on the program will be an open discussion on prepayment medical plans, the principal advantages and defects of both service and indemnity types of insurance being presented. Congressman Arthur L. Miller of Nebraska, author of the Miller Bill to unify certain health services, is to be among the speakers.

All members of the American Medical Association are invited to attend.

C. L. Palmer, M.D., Pittsburgh, president of the conference, will open the session with an address from the chair at 9:30 a. m. Members of the conference executive committee, in addition to the president and secretary, are W. L. Burnap, M.D., Fergus Falls, Minnesota; J. D. McCarthy, M.D., Omaha, Nebraska; Edwin S. Hamilton, M.D., Kankakee, Illinois; Walter E. Vest, M.D., Huntington, West Virginia; Russell M. Kurten, M.D., Racine, Wisconsin; Creighton Barker, M.D., New Haven, Connecticut; and Dwight H. Murray, M.D., Napa, California.

Detailed programs of the conference may be obtained through any member of the executive committee or by writing Cleon A. Nafe, M.D., secretary, National Conference on Medical Service, 822 Hume Mansur Building, Indianapolis 4, Indiana.

SPEAKERS BUREAU RADIO SCHEDULE

WOI—Tuesdays at 1:00 p. m.

WSUI—Thursdays at 9:00 a. m.

January	2- 4	The Treatment of Pneumonia	Ernest J. Voigt, M.D.
January	9-11	High Blood Pressure	Byron L. Basinger, M.D.
January	16-18	The Rôle of Endocrinology in Good Health	Paul D. Anneberg, M.D.
January	23-25	Influenza	John E. Christiansen, M.D.
January 30- February 1		Insomnia	Norman D. Render, M.D.

STATE DEPARTMENT OF HEALTH

Walter L. Biering

Pneumonia Deaths and Case Notification

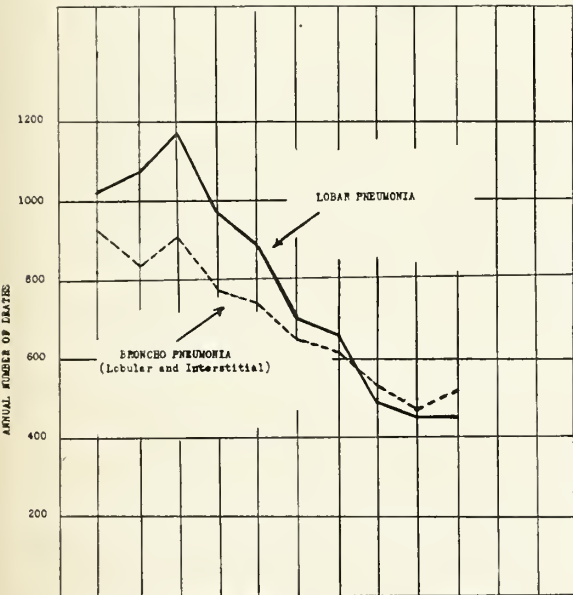
PNEUMONIA MORTALITY IN IOWA

In the following table, figures show the annual number of deaths from lobar pneumonia, broncho-pneumonia, and all forms of this disease, for the decade 1934 through 1943, and the first nine months of 1944.

TABLE I
Pneumonia Deaths in Iowa 1934-1944 (1st 9 Mos.)

Year	Lobar	Broncho	Unspecified	All Forms
1934	1,020	924	21	1,965
1935	1,078	835	16	1,929
1936	1,170	909	21	2,100
1937	962	769	14	1,745
1938	882	739	26	1,647
1939	700	649	31	1,380
1940	656	616	42	1,314
1941	493	541	48	1,082
1942	453	467	42	962
1943	454	522	43	1,019
1944 (1st 9 Mos.)	367	381	25	773

The figures in this table indicate a remarkable decrease, beginning in 1937, in total deaths from lobar pneumonia and bronchopneumonia (includ-



PNEUMONIA MORTALITY IN IOWA—1934-1943
Showing Trend of Deaths Due to Lobar Pneumonia and to
Bronchopneumonia (Lobular and Interstitial Forms)

ing lobular and interstitial forms). The advent of sulfonamide drugs, the use of type-specific anti-pneumococcic serum, emphasis on accurate bacteriologic diagnosis, and early treatment are chief factors to account for the great lowering of the death rate from 78.7 per 100,000 during the three-year period 1934-1936 to 40.2 per 100,000 for the years 1941-1943.

Since 1941, deaths from lobar pneumonia have been exceeded by those recorded as due to bronchopneumonia. This is clearly brought out in the accompanying line diagram, derived from the figures in the first two columns of Table I.

REPORTING OF ACUTE LOBAR PNEUMONIA

On November 3, 1944, the Commissioner forwarded to staff physicians, superintendents of hospitals, and medical directors of district health services in Iowa, the following letter requesting complete reporting of cases of acute lobar pneumonia ;

Dear Co-Workers:

On behalf of the Iowa State Department of Health, it is desired to enlist your continued support of efforts to secure adequate reporting of acute lobar pneumonia.

This office requests that pneumonia report cards . . . be used to notify the Department of all cases of acute lobar pneumonia that receive treatment in the hospital. It is suggested that the report cards be mailed from the Superintendent's office and completed by the record librarian, or by the laboratory worker if bacteriologic diagnosis is made.

Clerical work will be minimized by filling out the pneumonia report card at the time the hospital record is considered at staff meeting or when diagnosis has been clearly established. The report cards carry the franking privilege and do not require postage. Additional cards will be forwarded promptly on request. Envelopes may be used if preferred.

The method of reporting as above outlined is designed to conserve the doctors' time and effort. The report card will not be followed by a letter requesting more detailed information, except for cases that have

the benefit of laboratory work with finding of Pneumococcus of important types such as I to VIII and XIV.

Physicians treating acute lobar pneumonia in the home are requested to report cases to the District Health Office on cards addressed to that office or to the State Department of Health.

The Department will provide the following on request:

- 1. Blood culture outfits without cost.
- 2. Pneumococcus and Friedlander typing serum without cost.
- 3. Reimbursement to the hospital for the cost of penicillin when the attending physician indicates patient's inability to pay.
- 4. Type-specific curative anti-pneumococcic serum when the attending physician indicates patient's inability to pay. (Serum for common types I to VIII and XIV may be obtained through the State Department of Health.)

Thanking you and staff physicians for interest in the reporting of acute lobar pneumonia and trusting that the State Department of Health may continue to be of service, I am,

Very sincerely yours,
WALTER L. BIERRING, M.D.,
Collaborating Epidemiologist and
Health Commissioner.

DIPHTHERIA MORBIDITY AND MORTALITY IN IOWA

Data with reference to reported cases of diphtheria, deaths from this disease and the annual death rate per 100,000 population in Iowa for the fifteen-year period 1930-1944 (through December 20 for cases, and provisional deaths as recorded through November), are presented in Table II as follows:

TABLE II
Diphtheria Cases and Deaths in Iowa

Year	Cases	No. Deaths	Rate Per 100M
1930	412	44	1.8
1931	509	62	2.5
1932	657	50	2.0
1933	563	55	2.2
1934	415	38	1.5
1935	599	56	2.2
1936	289	26	1.0
1937	179	11	0.4
1938	395	24	1.0
1939	305	15	0.6
1940	190	15	0.6
1941	199	8	0.3
1942	187	10	0.4
1943	156	12	0.5
1944 (through Dec. 20)	196	7 (1st 11 mos.)	—
	5,251	433	

REPORTED MORBIDITY BY MONTHS, 1944

The accompanying table (Table III) shows the number of cases of diphtheria which were expected

to be reported for the months of 1944, based on the month-by-month average for the nine-year period 1935-1943 (column one in table); also the number of cases as actually observed and reported during the months of the past year.

TABLE III
Reported Incidence of Diphtheria by Months, 1944

Month	Expected Cases 9-Year Average 1935-1943	Observed Cases as Reported 1944
January	28	22
February	23	19
March	17	23
April	19	13
May	15	11
June	10	9
July	8	11
August	15	8
September	23	11
October	23	9
November	21	39
December	18	21 (through Dec. 20)

It will be noted in Table III that diphtheria developed unusual prevalence in the state, beginning in November 1944.

DIPHTHERIA DEATHS IN 1944

Provisional deaths from diphtheria as recorded for the first eleven months of 1944 numbered 7. Four deaths occurred in November, two each in Page and Woodbury Counties. None of those who died had been actively immunized against diphtheria; there was delay on the part of parents in calling the attending physician and in administration of antitoxin.

PREVALENCE OF DISEASE

Disease	Nov. '44	Oct. '44	Nov. '43	Most Cases Reported From
Diphtheria	39	9	14	Page, Woodbury
Scarlet Fever	224	137	252	Polk, Linn
Typhoid Fever	4	1	8	Linn, Lucas, Polk, Wright
Smallpox	1	0	1	Story
Measles	40	10	140	Guthrie, Ida
Whooping Cough	17	42	148	Boone, Des Moines
Brucellosis	35	19	21	Allamakee, Clayton, Pocahontas
Chickenpox	240	51	347	Black Hawk, Wood- bury, Calhoun
German Measles	2	2	36	Greene, Washington
Influenza	1	0	5	Boone
Malaria	75	31	1	Page, Clinton
Meningococcus Meningitis	3	8	2	Black Hawk, Clayton, Monroe
Mumps	121	78	48	Johnson, Dubuque, Sac
Pneumonia	32	5	16	Clinton, Black Hawk
Poliomyelitis	14	60	8	Winneshiek
Tuberculosis	39	66	33	For the State
Gonorrhea	244	231	130	For the State
Syphilis	163	121	156	For the State

The JOURNAL of the

Iowa State Medical Society

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JANUARY, 1945

No. 1

THE OLD YEAR ENDS—A NEW ONE BEGINS

Following its usual custom the JOURNAL again this year wishes to extend to all of its readers the greetings of the season. A year ago, in this column, we expressed the hope that by the year's end we all might be united again in our peaceful pursuits at home and be with our families at our fire-sides. But the unseen Gods who rule our destinies have decreed otherwise. Our friends and our colleagues in military service are still scattered to the four corners of the earth, and to them we send a special message of greeting and repeat the fervent hope that this New Year may bring what we all so earnestly pray for—peace and the return of our comrades.

As we look back over the events of the past year, our thoughts turn first to those of our number who wear the uniform of their country. It is with pride that we report to them that the nation's praise has been repeatedly heaped upon them for the superlative job they have done and are doing in attending the medical needs of our fighting men, both on foreign battlefields and in the home training camps. Never before has scientific medicine risen to such heights of accomplishment as in this war. In many a home this holiday season hearts will be gladdened by the knowledge that a "casualty" will be coming home one of these days to join his loved ones who might otherwise remain forever on foreign soil because blood and plasma and sulfonamides and penicillin, along with medical skill, were on the spot to save his life. To these "medicos" and to the members of their administrative corps who by day and night brave the frightful din of exploding bombs and the hail of bullets in the very front lines, and sometimes even

in enemy territory, in searching out and bringing back on stretchers our wounded boys—to these unsung, undecorated, everyday heroes whether on land or sea—those of us here at home would send you at this season a message of understanding of the sacrifices you are making and the Hell you are experiencing that your country and your homes may remain unscathed and free from the tyrant's heel. That your sacrifices and those of the thousands of comrades with you this time may not have been in vain is the New Year's wish we would extend to you. May God give the leaders of our nation the wisdom and the courage through the coming years to so guide the destinies of our land that never again will the necessity arise for the waging of another war.

We would also like you to know—those of you who are away from home in military service—that your colleagues in the medical profession whose duties are on the civilian front are meeting their obligations no less heroically but in a different way. Some of our number have succumbed during the past year. They are casualties of the war effort as truly as those on the battlefield. To their families and friends we would voice our sympathies for the bereavement we know must be especially poignant during this festive season. Others are carrying on magnificently the double and triple load of meeting the needs of the folks at home made necessary by your absence. Just as you on the military fronts are doing an unexcelled job, so are the civilian doctors on the home front. So far as we know none of our people, at least in our state, are suffering from lack of medical care. To be sure, our hospitals are crowded to capacity and beyond and doctors are working long hours and far into the night to meet all the demands made upon them. But the job is being done and we believe well done. We speak of this especially because we should like you and the servicemen about you to know that you need have no worries concerning the medical care of those close to you whom you have left at home.

We know, too, that many of you are worried lest in your absence the free private practice of medicine to which you look forward to returning with such enthusiasm and expectation, may in the meantime have become changed by the infiltration or frank domination of government. It cannot be denied that medical practice is currently the subject of considerable controversy. What modifications will emerge in the postwar period no one at this time can prophesy with accuracy. There are those—mostly advocates of some such proposal as the Wagner-Murray-Dingell Bill—who feel that sweeping changes are necessary. Advocates of such proposals are to be found chiefly among the

labor and farm groups and the social service workers and reformers who reside in large cities, especially in Washington. The former of these have powerful blocs in the Capitol, and all of them are undoubtedly using every opportunity to advance their cause with our Congressmen. It seems doubtful, however, that there is any immediate danger of a sudden legislative edict which would force a system of state medicine upon the nation. Many other proposals are being advanced to meet what are considered to be the needs of our changing social and economic structure. Among these are the plan of the American Public Health Association, the Kaiser plan for industrial organizations, and the LaGuardia plan for the employees of New York City.

The physicians themselves have recognized that certain extensions of medical service programs to meet the security needs of employed persons in low income groups are desirable; and some twenty states, including Iowa, are busy in perfecting plans for the launching of such programs based on voluntary insurance principles. To the extent to which these are successful, and in combination with an almost certain government sponsored post-war expansion in hospital construction, would seem to depend the answer as to whether pressure will be continued for an all-out form of state medicine. Increasing socialization of medicine is inevitable, but state medicine is a culmination which all of us must oppose to the limit of our abilities. It would seem entirely possible that methods of extending medical service to meet the needs of all our people and yet within the framework of private practice, with government cooperation where needed instead of government domination, is a postwar attainable goal. In the meantime, those of us here at home will do our best to hold the fort for you, so that together when the war is over we may face the future united and with vigor.

And so in this holiday season we would again extend a New Year's greeting to all our profession—those in uniform and those at home—and say to you that we are proud of the job you are doing, and that we are looking forward eagerly to the day when we can all be together again to face side by side the new tasks of the postwar period.

1945 DUES

Dues should be received for 1945 before February 1. Maintain your state membership and send a check to your county secretary at once!

DEDICATION OF RAYMOND BLANK MEMORIAL HOSPITAL FOR CHILDREN

During the afternoon of December third, Dr. Oliver J. Fay presided over dedicatory exercises for the completed Raymond Blank Memorial Hospital for Children. Some two hundred invited guests braved the atrocious weather to view the hospital and to attend the impressive ceremony. Later in the day an additional thousand persons were shown through the hospital by nurses from the Methodist Hospital staff.

At the dedication, Dr. Walter L. Bierring, lifelong friend of the Blanks, reviewed the career of Raymond Blank, son of Mr. and Mrs. A. H. Blank who died at the age of thirty-two and in whose memory the hospital was erected. A full length portrait of Raymond hangs on the east wall of the main lobby. Dr. Bierring spoke of the active interest he had taken in children's organizations and of the fittingness of the Memorial as a means of carrying on the work he himself undoubtedly would have done had he lived. Mr. Blank, in his address in presenting the keys of the new hospital to Mr. Rolfe Wagner, President of the Board of Directors of the Iowa Methodist Hospital, touched the hearts of everyone by his reference to other parents who had lost sons and with whom he and Mrs. Blank shared a common grief. It was his and Mrs. Blank's hope, he said, that the Memorial they had created for their son would serve a long and useful purpose in ministering to the needs of children not only in the community but throughout the state as well. Mr. Wagner accepted the symbolic keys from Mr. Blank in the name of the Methodist Hospital, and Governor Hickenlooper gave an inspiring and understanding address in accepting the hospital for the people of Iowa.

Dr. Morris Fishbein, Editor of the *Journal of the American Medical Association*, delivered the dedicatory address of the afternoon in his own rapid-fire, inimitable style. He praised the modern construction of the hospital and pointed out the importance of its potentialities for research in advancing knowledge of the many problems still awaiting solutions in the field of child health, many of which he reviewed.

Certainly this generous and far-sighted gift of Mr. and Mrs. Blank fills a much and long needed want for hospital care of children. Its seventy-five bed capacity should mean that no sick child for miles around need lack institutional care whenever necessary. Its close association with a general hospital, giving it ready access to good laboratory, x-ray, surgical, and consultative serv-

ices, is in keeping with modern ideas of construction of children's hospitals. Besides the general beds located in small units, provision has been made for a contagious disease unit and for an out-patient department. These, together with the large newborn service of the main hospital, assure the essentials of a well rounded training in pediatrics for nurses, interns, and residents.

COMPLETE FEEDING INTRAVENOUSLY

Parenteral fluid therapy is assuming an ever increasing rôle of importance in the treatment of patients of all ages and all types. For years the customary solutions such as glucose, normal saline, and blood have been used. More recently plasma has been added to the group and has proved of tremendous benefit in the treatment of shock and shocklike conditions. Now, however, additional substances have appeared on the scene which, used in conjunction with other solutions, seem to make it possible to nourish a patient completely for considerable periods of time even if nothing at all is given by mouth.

The first recorded, complete intravenous feeding with fats, carbohydrates, and amino acids in proportions and quantities recommended in a normal infant's diet was published in the November 1944 issue of *The Journal of Pediatrics* by Helfrick and Abelson. A five month old infant with Hirschsprung's disease became marantic and so emaciated that death seemed inevitable. Carbohydrate was supplied in 50 per cent glucose solution, amino acids (amigen) in a 10 per cent solution, and fat in a 10 per cent emulsion. The latter consisted of olive oil and lecithin in a 2:1 ratio suspended in water. Fat globules were homogenized and given further treatment to reduce their size and provide adequate dispersion of the particles. A total of 520 calories daily was supplied the infant, 58 per cent of which came from the carbohydrate, 12 per cent from amino acids, and 30 per cent from fat. This required the daily administration of 150 cubic centimeters of 50 per cent glucose, 150 cubic centimeters of 10 per cent amino acids, and 180 cubic centimeters of 10 per cent fat emulsion. An additional 120 cubic centimeters of normal saline solution was given, making a total fluid intake of 600 cubic centimeters per day. It is not stated whether or not parenteral vitamins were given, but this could have been readily done and if necessary minerals to meet the baby's needs in this respect could have been supplied parenterally. The authors report that at the end of the five day period of intravenous nutrition the baby's condition had improved so much

that oral feedings were possible and the baby was discharged home seventeen weeks after admission, having gained 2,860 grams.

The importance of this report lies in the significance it has for what may be possible in the near future in the way of parenteral therapy. Unquestionably, more thought and study should be given by those of us in active practice to the actual needs of the patient in the way of parenteral fluids. While glucose and saline have their indications, now that so many other types of material for intravenous use are available selection must be made with care. Whole blood still stands out pre-eminently for use where there has been loss of blood, and plasma is the fluid of choice in shock. Protein in the form of amino acid (amigen) is being found of great value by the surgeons in the pre- and postoperative care of patients where a hypoproteinemia is present. While fat is not yet available on the market for intravenous use, this report of Helfrick and Abelson demonstrates its practicability, and in the near future total feeding by vein can be a practical and life-saving procedure.

ANNUAL CONFERENCE OF SECRETARIES AND EDITORS

The annual conference of the secretaries and editors of the 48 state medical societies was held in Chicago November 17 and 18. The program was well chosen as to subject matter, and many physicians attended.

Dr. James R. Bloss, chairman of the Board of Trustees of the American Medical Association, welcomed the group. Dr. Douglas L. Cannon, secretary of the Alabama society, was chosen presiding officer, and introduced Dr. Herman L. Kretschmer, President of the American Medical Association. Dr. Kretschmer said medical service plans were the main topic of conversation in most states he had visited, but that more education and information about them was needed, both as to their difficulties and their good points. He brought out the fact that because the span of life has been increased, there has been a corresponding increase in the degenerative diseases which has unjustly been blamed on lack of medical care.

Dr. Roger I. Lee, President-Elect, next spoke on postwar medical service. He mentioned the questionnaires which had been sent to medical officers and the high percentage of replies received. Many of the younger officers wanted a chance for further internship, residency, or fellowship, and a survey of those opportunities is now being made. He said that conferences had been held with the result that the Veterans Administration will regard

any medical officer, no matter what his age, as having had his training interrupted, and that he will therefore be eligible for further education under the G.I. bill of rights. The money allowed under this bill is not very much for a medical officer, and there has been a suggestion made that possibly the Army might retain him in service and give him a refresher course before discharging him. He also said the American Medical Association was going to establish an office of information.

Lt. Col. Harold C. Lueth described this office of information, saying it was to provide information of medical education opportunities, information about licensure, and information of the medical, social, and economic phases of locations. He distributed forms on which much of this information could be tabulated, and also showed slides giving the results of the questionnaires returned by medical officers.

Dr. John H. Fitzgibbon discussed the work of the Council on Medical Service and Public Relations, saying it had been handicapped by not having a permanent secretary. He said the Council planned to have regional meetings in the United States to acquaint the members with its functions. Among them he thought the Council might well undertake an evaluation of the medical service plans now in existence, that the plans could be strengthened by such conferences.

Dr. McGinnis and Dr. Robinson of the American Red Cross asked the opinion of the group about the future of the Red Cross blood donor program after the war. They said the Red Cross wanted to serve public health within the limits of its functions; that it was responsible for the safety of the volunteer donors, for the protection of the blood, and for the Red Cross money. It seemed to be the feeling of those present that the Red Cross can enroll the donors and carry out the administrative details, while the medical profession, either through the medical society or the state departments of health, can take care of the technical end.

Dr. E. D. Plass gave a thoughtful history of the development of the EMIC program, bringing out the fact that the method of payment was determined by Congress. He said the program had meant a regimentation of clients into one class, that of ward service, and that it had meant a scrapping by the Children's Bureau of ten years' establishment of standards for prenatal care. Consequently, while the program may have meant better care for some mothers than they had had previously, for many others it meant less care.

Dr. Thurman B. Rice discussed the EMIC program from an administrative standpoint. He

said the act had been before Congress four times and each time the vote for it has been overwhelming. Most of the trouble lies with the Children's Bureau which is definitely leftist inclined and breeds distrust. He brought out the fact that so far the program has cost \$42,800,000, and has been a terrific mess administratively, so what would the Murray-Wagner-Dingell Bill with its much larger coverage be? He ended by saying every state should talk to its congressmen about the matter.

Dr. Robert E. S. Young, in discussing medical service plans, said a change in administration would have made no difference except to delay action; that the need for prepayment exists and will prevail. Nine-tenths of all families have one wage earner only, and one-half the poverty of this group is due to illness of the wage earner. Sixty-five per cent of the people in California wanted insurance. Fifteen million people are covered by Blue Cross, eighteen million by industrial and commercial plans, so that already one-half of the population is covered by prepayment plans of some sort. Indigents and medical indigents will not be reached by prepayment insurance, and the government is not interested in this problem. These people will get charity as they have in the past. Medical care varies with the locality, and the cost varies also. Plans for medical care are pregnant with political power. Industry has long recognized the value of medical control. Labor now realizes the value of a medical program and is much interested, but Dr. Young felt it was impossible for industry, or the labor union, to develop a first class medical program because both want control of it. The medical profession should do the job.

He stressed the need for every physician to become familiar with the difference between indemnity and service plans, the good and dangerous points of each. He dwelt on the experience of the Michigan plan and the part the CIO had played in it. He then told the different proposals made in Ohio and the dangers in each. He ended his talk with the statement that we need more doctors in the county societies who understand the principles of insurance; we need county societies that will come to life and discuss the problem. He said the program should start in medical schools, and that the medical student should be included in organized medicine, and stimulated to an interest in its problems.

A representative from Michigan refuted some of Dr. Young's statements about the plan, and a general discussion followed.

The three papers given following the dinner Friday evening were well prepared and con-

structive. Dr. Herman M. Jahr, editor of the *Nebraska State Medical Journal*, spoke of state journals as molders of opinion; Dr. Creighton Barker, Secretary of the Connecticut State Medical Society, on the attitude of state medical journals toward political and social trends that may affect medical affairs; and Dr. E. M. Shanklin, Editor of the *Journal of the Indiana State Medical Association*, on state journals as news services.

Saturday morning Dr. J. W. Wilce discussed the national fitness program, starting with the findings in the last war and the efforts made to overcome some of the physical defects by a physical training program. Even so, the same findings occurred again in this war, and as a result a national committee has been appointed to try to bring about better physical fitness. Some physicians say the movement is poorly timed because physicians are too busy now to work with it; that it is a movement that crops up, will run its course, and die. Others feel that something can be accomplished and that physicians should cooperate and direct such a program. A general discussion followed with many participating in it.

Dr. A. S. Brunk closed the program by discussing a radio program recently carried on in Michigan. The State Society assessed each member \$10.00, and with this it put on weekly five minute commercial programs over seven stations in different portions of the state. An advertising company was hired to prepare the script, and competent radio actors to play the different parts. Through this means the Society was able to present its views and policies to the public, and the response was gratifying.

MINUTES OF MEETINGS OF STATE SOCIETY OFFICERS AND COMMITTEES

Meeting of the Executive Council

December 17, 1944

The Executive Council of the Iowa State Medical Society met at the Hotel Fort Des Moines in Des Moines Sunday, December 17, 1944, at 10:00 a. m. with the following persons present: Drs. R. D. Bernard of Clarion, Robert L. Parker, James A. Downing, and O. J. Fay of Des Moines, L. L. Carr of West Union, C. H. Cretzmeyer of Algona, J. B. Knipe of Armstrong, J. E. Reeder of Sioux City, E. F. Beeh of Fort Dodge, J. C. Hill and J. W. Billingsley of Newton, H. A. Householder of Winthrop, C. A. Boice of Washington, R. C. Gutch of Chariton, J. G. Macrae of Creston, and W. A. Sternberg of Mt. Pleasant.

The meeting was called to order by the president-elect, Dr. Bernard, at 10:15 a. m. After discussion, it was voted that the NPC committee be continued and that it report to the next House of Delegates meeting with a resolution which will give the dele-

gates to the American Medical Association something by which to be guided.

Directors to serve until the incorporation of Iowa Medical Service were appointed, and the meeting adjourned at 11:50 a. m.

Meeting of the Cancer Committee

December 17, 1944

The Cancer Committee of the Iowa State Medical Society met at the Hotel Fort Des Moines in Des Moines Sunday, December 17, 1944, with the following persons present: Drs. L. L. Carr, C. H. Cretzmeyer, J. B. Knipe, J. E. Reeder, E. F. Beeh, J. C. Hill, H. A. Householder, C. A. Boice, R. C. Gutch, J. G. Macrae, A. W. Erskine, H. W. Morgan, E. G. Zimmerer, J. W. Billingsley, and R. D. Bernard.

Meeting was called to order by the chairman, Dr. Reeder, at 11:50 a. m. and the utilization or non-utilization of tumor clinics was discussed, as was the need for legislation making wider utilization possible. It was voted that the Cancer Committee should draw up a bill to be given to the Legislative Committee for study, and to the State Department of Health for its approval, and then an effort be made to get it passed in the coming session of the Legislature.

It was also voted that the Cancer Committee approve the full time employment of someone by the Field Army to head its work. Meeting adjourned at 12:30 p. m.

Meeting of the Fee Committee

December 17, 1944

The special committee appointed by the Speaker of the House to draw up a fee schedule for Iowa Medical Service met at the Hotel Fort Des Moines in Des Moines Sunday, December 17, 1944, with the following physicians present: R. N. Larimer of Sioux City, chairman; B. C. Boston of Waterloo, B. J. Dierker of Fort Madison, H. A. Weis of Davenport, L. A. Taylor of Ottumwa, F. W. Mulsow and Florence Johnston of Cedar Rapids, A. F. O'Donoghue of Sioux City, H. E. Farnsworth of Storm Lake, L. A. Coffin of Farmington, J. W. Billingsley of Newton, R. D. Bernard of Clarion, H. M. Pahlas of Dubuque, E. C. McClure of Bussey, J. S. Gaumer of Fairfield, and F. W. Fordyce, T. A. Burcham, J. A. Downing, C. W. Losh, and Martin I. Olsen of Des Moines.

The committee discussed fees for the many procedures involved in the plan and arrived at definite figures. Meeting adjourned at 3:30 p. m.

DR. BERNARD TO HEAD NORTH CENTRAL CONFERENCE

Dr. R. D. Bernard of Clarion, President-Elect of the Iowa State Medical Society, was honored by being elected president of the North Central Conference at its annual meeting in St. Paul December 10. The North Central Conference is an informal organization of representatives from Wisconsin, Minnesota, North and South Dakota, Nebraska and Iowa, and meets annually in St. Paul.

DR. STERNBERG HONORED

Dr. W. A. Sternberg of Mt. Pleasant, a member of the Board of Trustees of the Iowa State Medical Society, was named president-elect of the Mississippi Valley Medical Society at the annual directors meeting in Quincy, Illinois. He will take office in 1946. Others elected were Dr. L. H. Jorstad, St. Louis, Missouri, first vice president; Dr. E. E. Nystrom, Peoria, Illinois, second vice president; Dr. E. J. Lessenger, New London, Iowa, third vice president; and Dr. Harold Swanberg, Quincy, Illinois, secretary-treasurer. Dr. Grayson L. Carroll of the St. Louis University School of Medicine was installed as president for the 1945 term.

AMERICAN COLLEGE OF SURGEONS ANNOUNCES 1944 APPROVED LIST OF HOSPITALS

The American College of Surgeons announces that 3,152 hospitals in the United States and Canada are included in the 1944 Approved List. The list is published in the annual Approval Number of the College Bulletin issued December 31.

There were 3,911 hospitals included in the 1944 survey, and the approved hospitals represent 80.6 per cent. The first annual survey in 1918 included 692 hospitals of 100 beds or over, of which only 89 or 12.8 per cent merited approval. Hospitals of 25 beds and over are covered in the current surveys.

On the 1944 survey list there was a total of 2,342 hospitals of 100 beds and over, and 2,182 or 93.1 per cent were approved. There were 1,119 hospitals of 50 to 99 bed capacity under survey, of which 789 or 70.3 per cent were approved, and 450 hospitals of 25 to 49 bed capacity, of which 181 or 40.2 per cent were approved.

On December 31 of each year the ratings of hospitals under survey by the American College of Surgeons automatically terminate. The status of every hospital based upon all data collected from the current survey is reconsidered each year.

ANNUAL MARCH OF DIMES

Forty-three prominent industrial and civic leaders have been appointed as state chairmen for the March of Dimes and will direct the Fund-Raising Appeal of The National Foundation for Infantile Paralysis, January 14 to 31, in their states, according to an announcement made by Basil O'Connor, Foundation President. Thirty-four of the chairmen who will direct the appeal in their states served in a similar capacity last year. Among the new chairmen appointed was Mr. E. Lee Keyser of Des Moines, who will direct the 1945 appeal in Iowa.

Although the infantile paralysis epidemic of 1944, with nearly 19,000 cases already reported, was the second largest in the recorded history of the disease in the United States, the nation was better prepared for the march of the Crippler than ever before,

through the generosity of the American people whose dimes and dollars helped to stem the tide of the mysterious poliomyelitis for which there is no known preventive and no cure.

Epidemic areas in 1944 included North Carolina, New York, Kentucky, Ohio, Virginia, Pennsylvania and Michigan. Poliomyelitis also severely affected Tennessee, Maryland, Indiana, Louisiana, New Jersey, Mississippi, Connecticut and District of Columbia.

MICHIGAN SURVEY

The Michigan Health Council recently conducted a survey of 4,968 persons, a representative cross section of the population, to determine the public's attitude toward the medical profession, and to estimate the degree to which the idea of socialized medicine has been accepted by the people of the state. Undoubtedly a survey in Iowa would give practically the same results. Some of the questions and answers may be of interest, and are given for your information.

1. What is your opinion of doctors of medicine? As a group do you think they are doing a good job for the public? Yes—91.6%; No—4.2%; Don't Know—4.2%.

2. In case of an ordinary operation, would you prefer to have your regular doctor or would you prefer to have a specialist? Regular Doctor—56.5%; Specialist—38.4%; Don't Know—5.1%.

3. Do you believe medical doctors are as honest as they should be in all dealings with patients? Yes—60.8%; No—28.0%; Don't Know—11.2%.

4. Do you think you pay too much, too little, or the right amount for medical doctors? Pay too much—20.5%; Too Little—1.2%; The Right Amount—68.9%.

5. Do you think we should have some sort of a government operated medical hospital plan? Yes—38.7%; No—42.8%; Don't Know, 18.5%.

6. If you were asked to choose between one of these plans for medical hospital care, which would you prefer?

Voluntary, professionally-sponsored..	33.7%
Present private practice.....	26.6%
Government-controlled	15.5%
Regular insurance	13.4%
Union-controlled .....	.9%
Don't know	9.9%

7. How did you select your present medical doctor? Personal recommendation by a friend, a relative, or other medical men influenced 37% of the people when choosing their medical doctor. Fifteen per cent of the people made their choice because of the doctor's reputation, and 14% retained their "family doctor." Eleven per cent said their doctor had been selected by chance: from the telephone book, building directory, or just because the location was convenient.

Roster of Iowa Physicians in Military Service

As of December 23, 1944

Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.)Capt., A.U.S.
Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.)Capt., A.U.S.

Adams County

Bain, C. L., Corning (Fleet PO, San Francisco, Cal.)Lt. Comdr., U.S.N.R.
Willett, W. J., Carbon (APO 230, New York, N. Y.)Capt., A.U.S.

Allamakee County

Hogan, P. W., Waukon
Ivens, M. H., Waukon (Camp Shelby, La.)
Kiesau, M. F., Postville (Jefferson Barracks, Mo.)Major, A.U.S.
Rominger, C. R., Waukon (Camp Claiborne, La.)A.U.S.

Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.)Major, U.S.P.H.S.
Edwards, R. R., Centerville (Richmond, Va.)Capt., A.U.S.
Husten, M. D., Centerville (Camp Bowie, Texas)Capt., A.U.S.

Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.)Major, A.U.S.

Benton County

Koontz, L. W., Vinton (APO 7, San Francisco, Cal.)Capt., A.U.S.
Senfeld, Sidney, Belle Plaine

Black Hawk County

Bickley, D. W., Waterloo (APO New York, N. Y.)Capt., A.U.S.
Bickley, J. W., Waterloo (APO 956, San Francisco, Cal.)Capt., A.U.S.
Butts, J. H., Waterloo (Galveston, Texas)Comdr., U.S.N.R.
Cooper, C. N., Waterloo (Ottumwa, Iowa)Lt. Comdr., U.S.N.R.
Ericsson, M. G., Cedar Falls (Camp Barkeley, Tex.)Capt., A.U.S.
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.)Capt., A.U.S.
Henderson, L. J., Cedar Falls (APO 782, New York, N. Y.)Major, A.U.S.
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.)Capt., A.U.S.
Ludwick, A. L., Waterloo (Abilene, Texas)Major, A.U.S.
Marquis, F. M., Waterloo (APO 17321, New York, N. Y.)Capt., A.U.S.
O'Keefe, P. T., Waterloo (APO 79, New York, N. Y.)Capt., A.U.S.
Paige, R. T., LaPorte City (Banana River, Fla.)Comdr., U.S.N.R.
Rohlf, E. L., Jr., Waterloo (APO 230, New York, N. Y.)Major, A.U.S.
Selbert, C. W., Waterloo (Colorado Springs, Colo.)Major, A.U.S.
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.)Major, A.U.S.
Smith, R. I., Waterloo (Milwaukee, Wis.)Capt., A.U.S.
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.)Major, A.U.S.
Trunnell, T. L., Waterloo (Parris Island, S. Car.)Lt. U.S.N.R.

Boone County

Brewster, E. S., Boone (APO 446, New York, N. Y.)Major, A.U.S.
Healy, M. J., Boone (Camp Chaffee, Ark.)Capt., A.U.S.
Shane, R. S., Pilot Mound (Des Moines, Ia.)Lt. Col., A.U.S.

Bremner County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.)Lt., U.S.N.R.
Rathe, H. W., Waverly (APO 209, New York, N. Y.)Major, A.U.S.
Shaw, R. E., Waverly (Long Beach, Cal.)1st Lt., A.U.S.

Buchanan County

Barton, J. C., Independence (APO 314, New York, N. Y.)Lt. Col., A.U.S.
Hesey, N. L., Independence (Fleet PO, San Francisco, Cal.)Lt. Comdr., U.S.N.R.
Leehey, P. J., Independence (APO 957, San Francisco, Cal.)Capt., A.U.S.
Loeck, J. F., Aurora (APO 9787, New York, N. Y.)Capt., A.U.S.

Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.)Capt., A.U.S.
Brecher, P. W., Storm Lake (Camp Adair, Ore.)Lt. Col., A.U.S.
Hansen, R. R., Storm Lake (Farragut, Idaho)Lt., U.S.N.R.
Maillard, R. E., Storm Lake (APO 264, New York, N. Y.)Lt. Col., A.U.S.
Shope, C. D., Storm Lake (Fort Des Moines, Ia.)Capt., A.U.S.
Witte, H. J., Marathon (Fort Crook, Nebr.)Major, A.U.S.

Butler County

Andersen, B. V., Greene (Fleet PO, Seattle, Wash.)Lt., U.S.N.R.
James, R. A., Allison (Mare Island, Cal.)
Rofls, F. O., Parkersburg (Springfield, Mo.)1st Lt., A.U.S.

Calhoun County

Grinley, A. V., Rockwell City (APO 350, New York, N. Y.)Capt., A.U.S.
Hobart, F. W., Lake City (Camp Grant, Ill.)Capt., A.U.S.
McVay, M. J., Lake City (Waco, Texas)Capt., A.U.S.

Peek, L. H., Lake City (Jefferson Barracks, Mo.)Capt., A.U.S.
Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.)Lt. Comdr., U.S.N.R.
Weyer, J. J., Lohrville (APO 465, New York, N. Y.)Capt., A.U.S.

Carroll County

Anneberg, A. R., Carroll (Camp Barkeley, Texas)A.U.S.
Anneberg, W. A., Carroll (APO 367, New York, N. Y.)Capt., A.U.S.
Cochran, J. L., Carroll (Gulfport, Miss.)Lt., U.S.N.R.
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.)Lt., U.S.N.R.
Freedland, Maurice, Coon Rapids
Morrison, J. R., Carroll (Ft. Dix, N. J.)Capt., A.U.S.
Morrison, R. B., Carroll (APO 634, New York, N. Y.)Capt., A.U.S.
Pascoe, P. L., Carroll (Bowman Field, Ky.)Capt., A.U.S.
Scannell, R. C., Carroll (Denver, Colo.)Capt., A.U.S.
Tindall, R. N., Coon Rapids (Hines, Ill.)Major, A.U.S.
Wyatt, M. R., Manning (De Ridder, La.)Capt., A.U.S.

Cass County

Egbert, D. S., Atlantic (APO 218, New York N. Y.)Major, A.U.S.
Needles, R. M., Atlantic (APO 181, New York, N. Y.)Capt., A.U.S.
Petersen, M. T., Atlantic (Topeka, Kan.)Capt., A.U.S.
Schiff, Joseph, Anita (Walla Walla, Wash.)1st Lt., A.U.S.

Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.)Lt., U.S.N.R.
Mosher, M. L., West Branch (APO 560, New York, N. Y.)Capt., A.U.S.
O'Neal, H. E., Tipton (Camp Maxey, Texas)Lt. Col., A.U.S.

Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.)Capt., A.U.S.
Egloff, W. C., Mason City (APO 17130, New York, N. Y.)Capt., A.U.S.
Flickinger, R. R., Mason City (Tuscaloosa, Ala.)Capt., A.U.S.
Hale, A. E., Dougherty (Atlanta, Ga.)Capt., A.U.S.
Harris, R. H., Mason City (Dyersburg, Tenn.)Capt., A.U.S.
Harrison, G. E., Mason City (APO 365, New York, N. Y.)Col., A.U.S.
Houlahan, J. E., Mason City (APO 838, New Orleans, La.)Capt., A.U.S.
Lannon, J. W., Clear Lake (APO 230, New York, N. Y.)Capt., A.U.S.
Long, D. L., Mason City (APO 520, New York, N. Y.)Capt., A.U.S.
Morgan, P. W., Mason City (Camp Butner, N. Car.)Capt., A.U.S.
Marinos, H. G., Mason City (APO 25, San Francisco, Cal.)Capt., A.U.S.
Sternhill, Irving, Mason City (Ayer, Mass.)Capt., A.U.S.

Cherokee County

Bullock, G. D., Washta (APO 17583, New York, N. Y.)Capt., A.U.S.
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.)Major, A.U.S.
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.)Capt., A.U.S.

Chickasaw County

Caulfield, J. D., New Hampton (APO 178, New York, N. Y.)Major, A.U.S.
Murphey, A. L., Fredericksburg (APO 3470, San Francisco, Cal.)Capt., A.U.S.
O'Connor, E. C., New Hampton (Redmond, Ore.)Capt., A.U.S.
Richmond, P. C., New Hampton (APO 88, New York, N. Y.)Major, A.U.S.

Clarke County

Armitage, G. I., Murray (Carlisle Barracks, Pa.)1st Lt., A.U.S.

Clay County

Edington, F. D., Spencer (APO 629, New York, N. Y.)Col., A.U.S.
Jones, C. C., Spencer (Fleet PO, San Francisco, Cal.)Lt., U.S.N.R.
King, D. H., Spencer (Peterson Field, Colo.)Capt., A.U.S.

Clayton County

Anderson, H. M., Strawberry Point (Springfield, Mo.)Capt., A.U.S.
Glesne, O. G., Monona (Knoxville, Iowa)Capt., A.U.S.
Rhomborg, E. B., Guttengen (APO 584, New York, N. Y.)Capt., A.U.S.

Clinton County

Amesbury, H. A., Clinton (Vancouver, Wash.)Capt., A.U.S.
Burke, J. C., Clinton (Great Bend, Kan.)A.U.S.
Ellison, G. M., Clinton (APO 9030, New York, N. Y.)Capt., A.U.S.
Hill, D. E., Clinton (APO 9787, New York, N. Y.)Capt., A.U.S.
King, R. C., Clinton (APO 403, New York, N. Y.)Capt., A.U.S.

Lenaghan, R. T., Clinton (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Norment, J. E., Clinton (Washington, D. C.) Lt. Comdr., U.S.N.R.
 Riedesel, E. V., Wheatland (Fort Douglas, Utah)
 Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.) Capt., A.U.S.
 Snyder, D. C., De Witt
 Speigel, I. J., Clinton (Galesburg, Ill.) Capt., A.U.S.
 Van Epps, E. F., Clinton (APO 9921, New York, N. Y.) Capt., A.U.S.
 Waggoner, C. V., Clinton (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Wells, L. L., Clinton (APO 17172 New York, N. Y.) Capt., A.U.S.

Crawford County

Fee, C. H., Denison (APO 696, New York, N. Y.) Major, A.U.S.
 Grau, A. H., Denison (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Maire, E. J., Vail (Camp Howze, Tex.) Capt., A.U.S.
 Wetrich, M. F., Manilla (APO 986, Seattle, Wash.) Capt., A.U.S.

Dallas-Guthrie Counties

Butterfield, E. T., Dallas Center (Fort Sheridan, Ill.) 1st Lt., A.U.S.
 Byrnes, A. W., Guthrie Center (Fort Custer, Mich.) Major, A.U.S.
 Fail, C. S., Adel (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Margolin, J. M., Perry (APO 5816, New York, N. Y.) Capt., A.U.S.
 McGilvra, R. I., Guthrie Center (Ames, Iowa) Lt., U.S.N.R.
 Mullmann, A. J., Adel (APO 17558, San Francisco, Cal.) Capt., A.U.S.
 Nicoll, C. A., Panora (APO 17351, New York, N. Y.) Capt., A.U.S.
 Osborn, C. R., Dexter (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Todd, D. W., Guthrie Center (APO 2, New York, N. Y.) Capt., A.U.S.
 Wilke, F. A., Woodward Capt., A.U.S.

Davis County

Fenton, C. D., Bloomfield (APO 5253, New York, N. Y.) Capt., A.U.S.
 Giffilan, G. W., Bloomfield (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Decatur County

Gamet, E. E., Lamoni (APO New York, N. Y.) Capt., A.U.S.

Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.) Capt., A.U.S.
 Clark, R. E., Manchester (APO 419, New York, N. Y.) Capt., A.U.S.

Des Moines County

Eigenfeld, M. L., Burlington (Cleveland, Ohio) 1st Lt., A.U.S.
 Heitzman, P. O., Burlington (Fort Baker, Cal.) Capt., A.U.S.
 Jenkins, G. D., Burlington (West Point, N. Y.) Lt. Col., A.U.S.
 Lohmann, C. J., Burlington (APO 708, San Francisco, Cal.) Major, A.U.S.
 McKitterick, J. C., Burlington (Hamilton, R. I.) Comdr., U.S.N.R.
 Moerke, R. F., Burlington (APO 9641, San Francisco, Cal.) Capt., A.U.S.
 Sage, E. C., Burlington (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Dickinson County

Buchanan, J. J., Milford (Santa Ana, Cal.) Lt., U.S.N.R.
 Henning, G. G., Milford (APO 96, San Francisco, Cal.) Major, A.U.S.
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.) Capt., A.U.S.
 Rodawig, D. F., Spirit Lake Major, A.U.S.

Dubuque County

Anderson, E. E., Dubuque (Bradley Field, Conn.) Capt., A.U.S.
 Beddoes, M. G., Cascade (APO 709, San Francisco, Cal.) Capt., A.U.S.
 Conzett, D. C., Dubuque (APO 887, New York, N. Y.) Lt. Col., A.U.S.
 Cunningham, J. C., Dubuque (Fairfield, Ohio) Capt., A.U.S.
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.) Major, A.U.S.
 Entringer, A. J., Dubuque (APO 41, San Francisco, Cal.) Capt., A.U.S.
 Hall, C. B., Dubuque (Camp Shelby, Miss.) Capt., A.U.S.
 Knoll, A. H., Dubuque (San Francisco, Cal.) Major, A.U.S.
 Langford, W. R., Epworth (Miami Beach, Fla.) Capt., A.U.S.
 Lavery, H. B., Dubuque (Washington, D. C.) Lt. Col., A.U.S.
 Leik, D. W., Dubuque (Wichita Falls, Tex.) Capt., A.U.S.
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.) Capt., A.U.S.
 Olson, P. F., Dubuque (Mare Island, Cal.) Lt. Comdr., U.S.N.R.
 Painter, R. C., Dubuque (Salt Lake City, Utah) Lt., U.S.N.R.
 Paulus, J. W., Dubuque (APO 115, New York, N. Y.) Capt., A.U.S.
 Plankers, A. G., Dubuque (APO 363 New York, N. Y.) Major, A.U.S.
 Quinn, E. P., Dubuque (Brentwood, L. I.) Major, A.U.S.
 Scharle, Theodore, Dubuque (APO 17570, New York, N. Y.) Capt., A.U.S.
 Schueller, C. J., Dubuque (APO 758, New York, N. Y.) 1st Lt., A.U.S.
 Sharpe, D. C., Dubuque (APO 5541, New York, N. Y.) Major, A.U.S.
 Smith, C. W., Dubuque (Shoemaker, Cal.) Lt., U.S.N.R.
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.) Lt. Col., A.U.S.
 Straub, J. J., Dubuque (Corpus Christi, Texas) Lt., U.S.N.R.
 Ward, D. F., Dubuque (Great Lakes, Ill.) Lt. Comdr., U.S.N.R.

Emmet County

Clark, J. P., Estherville (APO New York, N. Y.) Capt., A.U.S.
 Collins, L. E., Estherville (Camp Dodge, Iowa) A.U.S.
 Miller, O. H., Estherville (Seattle, Wash.) Lt. Comdr., U.S.N.R.

Fayette County

Gallagher, J. P., Oelwein (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Henderson, W. B., Oelwein (St. Louis, Mo.) Lt. Col., A.U.S.
 Sulzbach, J. F., Oelwein
 Walsh, W. E., Hawkeye (Port Chicago, Cal.) Lt. Comdr., U.S.N.R.

Floyd County

Baltzell, W. C., Charles City (APO 2, New York, N. Y.) Major, A.U.S.
 Flater, N. C., Floyd (APO 350, New York, N. Y.) Capt., A.U.S.
 Knight, R. A., Rockford (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Mackie, D. G., Charles City (APO 493, New York, N. Y.) Capt., A.U.S.
 Miner, J. B., Jr., Charles City (San Diego, Cal.) Lt., U.S.N.R.
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.) Capt., A.U.S.

Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) 1st Lt., A.U.S.
 Hedgecock, L. E., Hampton (Camp Lejeune, N. Car.) Lt. Comdr., U.S.N.R.
 Randall, W. L., Hampton (Oceanside, Cal.) Lt., U.S.N.R.
 Walton, S. G., Hampton (APO New York, N. Y.) Capt., A.U.S.

Fremont County

Kerr, W. H., Hamburg (Camp Phillips, Kan.) Capt., A.U.S.
 Marrs, W. D., Tabor (Ardmore, Okla.) Capt., A.U.S.
 Powell, R. A., Farragut (Great Lakes, Ill.) Lt. (jg), U.S.N.R.
 Wanamaker, A. R., Hamburg (APO 939, Seattle, Wash.) Capt., A.U.S.

Greene County

Cartwright, F. P., Grand Junction (APO 511, New York, N. Y.) Capt., A.U.S.
 Castles, W. A., Rippey (APO 958, San Francisco, Cal.) Major, A.U.S.
 Hanson, L. C., Jefferson (APO 728, New York, N. Y.) Capt., A.U.S.
 Jongewaard, A. J., Jefferson (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Limburg, J. I., Jr., Jefferson (APO 503, San Francisco, Cal.) Major, A.U.S.
 Lohr, P. E., Churdan (Hastings, Nebr.) Lt., U.S.N.R.

Grundy County

Cullison, R. M., Dike (Fort Howard, Md.) Major, A.U.S.
 Rose, J. E., Grundy Center (Fleet PO, New York, N. Y.) Lt. Comdr., U.S.N.R.

Hamilton County

Buxton, O. C., Webster City (APO 9921, New York, N. Y.) 1st Lt., A.U.S.
 Howar, B. F., Jewell (APO 514, New York, N. Y.) Major, A.U.S.
 James, D. W., Kamrar (APO 782, New York, N. Y.) Capt., A.U.S.
 Lewis, W. B., Webster City (APO 383, New York, N. Y.) Major, A.U.S.
 Mooney, F. P., Jewell (London, England) Capt., R.A.M.C.
 Paschal, G. A., Williams (Camp Berkeley, Texas) Capt., A.U.S.
 Patterson, R. A., Webster City (San Diego, Cal.) Lt. Comdr., U.S.N.R.
 Ptacek, J. L., Webster City (APO 12845 G, New York, N. Y.) Capt., A.U.S.
 Schrader, M. A., Webster City (Topeka, Kan.) 1st Lt., A.U.S.
 Thompson, E. D., Webster City (Biloxi, Miss.) Capt., A.U.S.

Hancock-Winnebag Counties

Dolmage, G. H., Buffalo Center (Nashville, Tenn.) Capt., A.U.S.
 Dulmes, A. H., Klemme (APO 1778, New York, N. Y.) Capt., A.U.S.
 Eller, L. W., Kanawha (APO 302, New York, N. Y.) Capt., A.U.S.
 Irish, T. J., Forest City (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Shaw, D. F., Britt (Delhart, Tex.) Major, A.U.S.
 Thomas, C. W., Forest City (Camp Crowder, Mo.) Capt., A.U.S.

Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.) Lt., U.S.N.R.
 Houlihan, F. W., Ackley (APO 860, New York, N. Y.) 1st Lt., A.U.S.
 Jansonius, J. W., Eldora (APO 4834, New York, N. Y.) Capt., A.U.S.
 Johnson, R. J., Iowa Falls (APO 514, New York, N. Y.) Capt., A.U.S.
 Johnson, W. A., Alden (Orlando, Fla.) Capt., A.U.S.
 Shurts, J. J., Eldora (Camp Roberts, Cal.) 1st Lt., A.U.S.
 Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Todd, V. S., Eldora (APO 9641, San Francisco, Cal.) Capt., A.U.S.

Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Ord, Cal.) Capt., A.U.S.
 Burbridge, G. E., Logan (APO 511, New York, N. Y.) Major, A.U.S.
 Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.) Capt., A.U.S.
 Heise, C. A., Jr., Missouri Valley (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Tamisiea, F. X., Missouri Valley (APO 562, New York, N. Y.) Capt., A.U.S.

Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.) Major, A.U.S.

Dwankowski, Carl, Mt. Pleasant (APO 511, New York, N. Y.) Capt., A.U.S.
 Gloeckler, B. B., Mount Pleasant (APO 9768, New York, N. Y.) Capt., A.U.S.
 Hartley, B. D., Mount Pleasant (APO 17130, New York, N. Y.) Capt., A.U.S.
 Megorden, W. H., Mount Pleasant (Ogden, Utah) Capt., A.U.S.
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.) Major, A.U.S.

Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Nierling, P. A., Cresco (APO 43, San Francisco, Cal.) Capt., A.U.S.

Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.) Capt., A.U.S.
 Coddington, J. H., Humboldt (Oklahoma City, Okla.) Capt., A.U.S.

Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.) Capt., A.U.S.
 Martin, J. W., Holstein (Seymour, Ind.) Capt., A.U.S.

Iowa County

McDaniel, J. D., Marengo (Fort Ord, Cal.) Capt., A.U.S.
 Miller, D. F., Williamsburg (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.

Jackson County

Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.) Major, A.U.S.

Jasper County

Doake, Clarke, Newton 1st Lt., A.U.S.
 Minkel, R. M., Newton (APO New York, N. Y.) Major, A.U.S.
 Ritchey, S. J., Newton Major, A.U.S.

Jefferson County

Castell, J. W., Fairfield (APO 9907, New York, N. Y.) Capt., A.U.S.
 Frey, Harry, Fairfield (Norfolk, Va.) Lt. Comdr., U.S.N.R.
 Gittler, Ludwig, Fairfield Lt. Col., A.U.S.
 Graber, H. E., Fairfield Galesburg, Ill. Major, A.U.S.
 Taylor, I. C., Fairfield (Washington, D. C.) 1st Lt., A.U.S.

Johnson County

Agnew, J. W., Iowa City (Fort Lewis, Wash.) Capt., A.U.S.
 Albert, S. M., Iowa City (Camp White, Ore.) 1st Lt., A.U.S.
 Allen, J. H., Iowa City (Scott Field, Ill.) Major, A.U.S.
 Anderson, E. N., Iowa City (APO 647, New York, N. Y.) Major, A.U.S.
 Boyd, E. J., Iowa City (Tampa, Fla.) Capt., A.U.S.
 Brinkhaus, K. M., Iowa City (APO 4672, San Francisco, Cal.) Lt. Col., A.U.S.
 Bunge, R. G., Iowa City (Biloxi, Miss.) 1st Lt., A.U.S.
 Callahan, G. D., Iowa City (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Coburn, F. E., Iowa City (Toronto, Canada) Capt., R.C.A.
 Cooper, W. K., Iowa City (Mitchell Field, N. Y.) Capt., A.U.S.
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.) Capt., A.U.S.
 Diddle, A. W., Iowa City (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.

Dorner, R. A., Iowa City (APO 534, New York, N. Y.) Capt., A.U.S.
 Elmquist, H. S., Iowa City (San Diego, Cal.) Lt. Comdr., U.S.N.R.
 Emmons, M. B., Iowa City (Ablene, Texas) Capt., A.U.S.
 Flax, Ellis, Iowa City (APO 5833, New York, N. Y.) 1st Lt., A.U.S.
 Flynn, J. E., Iowa City (Hot Springs, Ark.) Major, A.U.S.
 Fourt, A. S., Iowa City (APO 34, New York, N. Y.) Lt. Col., A.U.S.

Francis, N. L., Iowa City (Annapolis, Md.) Lt. (jg), U.S.N.R.
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.) Capt., A.U.S.
 Garlinghouse, R. O., Iowa City (APO 302, New York, N. Y.) Major, A.U.S.

Hardin, R. C., Iowa City (APO 508, New York, N. Y.) Major, A.U.S.
 Hartung, Walter, Iowa City (Camp Carson, Colo.) Capt., A.U.S.
 Hessin, A. L., Iowa City (APO 452, New York, N. Y.) Capt., A.U.S.

Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.

January, L. E., Iowa City (Pyote, Texas) Major, A.U.S.
 Kanealy, J. F., Iowa City (APO 923, San Francisco, Cal.) 1st Lt., A.U.S.

Keislar, H. D., Iowa City (Washington, D. C.) 1st Lt., A.U.S.
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.

Laubscher, J. H., Iowa City (Ft. Benning, Ga.) 1st Lt., A.U.S.
 Longwell, F. H., Iowa City (APO 515, New York, N. Y.) Major, A.U.S.

Moreland, F. B., Iowa City (Maxwell Field, Ala.) 1st Lt., A.U.S.
 Nagvy, S. F., Iowa City (Fleet PO, New York, N. Y.) Lt., U.S.N.R.

Newman, R. W., Iowa City (Fleet PO, New York, N. Y.) Lt., U.S.N.R.

Parkin, G. L., Iowa City (Mountain Home, Idaho) 1st Lt., A.U.S.
 Paulus, E. W., Iowa City (APO 34, New York, N. Y.) Lt. Col., A.U.S.

Petersen, V. W., Iowa City (APO 689, New York, N. Y.) Col., A.U.S.

Sells, R. L., Jr., Iowa City (Palmdale, Cal.) Capt., A.U.S.
 Smith, H. F., Iowa City (New York, N. Y.) Lt. Comdr., U.S.N.R.

Springer, E. W., Iowa City (APO 622, Miami, Fla.) 1st Lt., A.U.S.
 Stadler, H. E., Iowa City (Washington, D. C.) 1st Lt., A.U.S.

Staggs, W. A., Iowa City (Camp Robinson, Ark.) Major, A.U.S.
 Stephens, R. L., Iowa City (Orlando, Fla.) Capt., A.U.S.

Stump, R. B., Iowa City (Denver, Colo.) Capt., A.U.S.

Titus, E. L., Iowa City (Belmont, Mass.) Col., A.U.S.
 Trapasso, T. J., Iowa City (Patterson Field, Ohio) 1st Lt., A.U.S.
 Trussell, R. E., Iowa City (APO 5467, San Francisco, Cal.) Capt., A.U.S.
 Vest, W. M., Iowa City (Fort Missoula, Mont.) Capt., A.U.S.
 Ward, R. H., Iowa City (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Weatherly, H. E., Iowa City (APO 72, San Francisco, Cal.) Capt., A.U.S.
 Wollmann, W. W., Iowa City (Staunton, Va.) 1st Lt., A.U.S.
 Ziffren, S. E., Iowa City (Springfield, Mo.) 1st Lt., A.U.S.

Junior Members

Adams, M. P., Iowa City Lt. (jg), U.S.N.R.
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.) A.U.S.
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 Barrant, M. E., Iowa City (Camp Tyson, Tenn.) Capt., A.U.S.
 Black, N. M., Iowa City (McChord Field, Wash.) 1st Lt., A.U.S.
 Blair, J. D., Iowa City (APO San Francisco, Cal.) Major, A.U.S.
 Boyd, R. J., Iowa City (Spokane, Wash.) Capt., A.U.S.
 Brintnall, E. S., Iowa City (Colorado Springs, Colo.) 1st Lt., A.U.S.

Burr, S. P., Iowa City (APO San Francisco, Cal.) 1st Lt., A.U.S.
 Carney, R. G., Iowa City (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.

Connole, J. F., Iowa City (Camp Bowie, Texas) 1st Lt., A.U.S.
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.) 1st Lt., A.U.S.

Decker, C. E., Iowa City (Oklahoma City, Okla.) 1st Lt., A.U.S.
 Donnelly, B. A., Iowa City (APO San Francisco, Cal.) 1st Lt., A.U.S.

Ehrenhaft, J. L., Iowa City (APO New York, N. Y.) 1st Lt., A.U.S.

Englerth, F. L., Iowa City (APO San Francisco, Cal.) Capt., A.U.S.

Freiberg, M., Iowa City (Jefferson Barracks, Mo.) A.U.S.
 Glassman, A. L., Iowa City (Palm Springs, Cal.) 1st Lt., A.U.S.

Gilliland, C. H., Iowa City (Great Lakes, Ill.) Lt. (jg), U.S.N.R.
 Hamilton, H. E., Iowa City (Chicago, Ill.) 1st Lt., A.U.S.

Harms, G. E., Iowa City (Carlisle Barracks, Penn.) 1st Lt., A.U.S.

Hendricks, A. B., Iowa City (Klamath Falls, Ore.) Lt., U.S.N.
 Hovis, Wm., Iowa City (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.

Ide, L. W., Iowa City (Fort Warren, Wyo.) 1st Lt., A.U.S.
 Jacobs, C. A., Iowa City (APO New York, N. Y.) Major, A.U.S.

Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.) 1st Lt., A.U.S.

Keil, P. G., Iowa City (Sioux City, Iowa) 1st Lt., A.U.S.
 Kelberg, M. R., Iowa City (Alameda, Cal.) Lt., U.S.N.R.

Kelcher, M. F., Iowa City (Great Lakes, Ill.) Lt. (jg), U.S.N.R.
 Keoher, G. F., Iowa City (Camp Grant, Ill.) Capt., A.U.S.

Kugler, F. E., Iowa City (Fort Warren, Wyo.) Capt., A.U.S.
 Lowry, F. C., Iowa City (Sioux Falls, S. D.) 1st Lt., A.U.S.

McCann, J. P., Iowa City (Carlisle Barracks, Penn.) 1st Lt., A.U.S.

McQuiston, W. O., Iowa City (APO San Francisco, Cal.) Capt., A.U.S.

Moen, B. H., Iowa City 1st Lt., A.U.S.

Moon, R. E., Iowa City (APO New York, N. Y.) 1st Lt., A.U.S.
 Odell, Lester, Iowa City (Pensacola, Fla.) Lt. (jg), U.S.N.R.

Phillips, R. M., Iowa City (San Francisco, Cal.) 1st Lt., A.U.S.
 Pulliam, R. L., Iowa City (APO 350, New York, N. Y.) Major, A.U.S.

Randall, C. G., Iowa City Capt., A.U.S.

Randall, R. G., Iowa City (Waterloo, Iowa) Capt., A.U.S.
 Reinbusch, M., Iowa City (Fort Leonard Wood, Mo.) 1st Lt., A.U.S.

Russin, L. A., Iowa City (Fort Blanding, Fla.) Capt., A.U.S.

Saar, J. L., Iowa City (APO New York, N. Y.) Capt., A.U.S.

Sawiel, W. W., Iowa City Lt., U.S.N.R.

Schwilde, J. T., Iowa City (Carlisle Barracks, Penn.) 1st Lt., A.U.S.

Shand, J. A., Iowa City (Carlisle Barracks, Penn.) 1st Lt., A.U.S.

Shapiro, S. I., Iowa City A.U.S.

Simpson, F. E., Iowa City (Camp Grant, Ill.) Lt., U.S.N.R.

Skewis, J. E., Iowa City (Corona, Cal.) Lt., U.S.N.R.

Skouge, O. T., Iowa City Lt., U.S.N.R.

Towle, R. A., Iowa City (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.

Warren, R. F., Iowa City (Santa Barbara, Cal.) A.U.S.

Watters, V. G., Iowa City (Fort Leonard Wood, Mo.) 1st Lt., A.U.S.

Wicks, W. J., Iowa City (Camp Crowder, Mo.) Capt., A.U.S.

Williams, L. A., Iowa City (Treasure Island, Cal.) 1st Lt., A.U.S.

Willumsen, H. C., Iowa City (Denver, Colo.) Capt., A.U.S.

Wolkin, J., Iowa City (San Antonio, Texas) Capt., A.U.S.

Yetter, W. L., Iowa City (APO New York, N. Y.) Capt., A.U.S.

Zahrt, N. E., Iowa City (Keesler Field, Miss.) Capt., A.U.S.

Zimmerman, H. A., Iowa City (Santa Ana, Cal.) 1st Lt., A.U.S.

Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.) Capt., A.U.S.

Doyle, J. L., Sigourney (Camp Barkley, Texas) A.U.S.

Engelmann, A. T., What Cheer (Camp Polk, La.) Capt., A.U.S.

Graham, J. A., Gibson (Needles, Cal.) 1st Lt., A.U.S.

Montgomery, G. E., Keota (Antioch, Cal.) Capt., A.U.S.

Wiley, Dudley, Hedrick (Mason City, Wash.) Lt. Comdr., U.S.N.R.

Kossuth County

Clapsaddle, D. W., Burt (Denver, Colo.) Capt., A.U.S.

Corbin, R. L., Luverne (Des Moines, Iowa) Capt., A.U.S.

Kenefick, J. N., Alcona (San Diego, Cal.) Lt. Comdr., U.S.N.R.

Williams, R. L., Lakota (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Lee County

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.
 Cleary, H. G., Fort Madison (Ft. Benning, Ga.) Capt., A.U.S.
 Cooper, R. E., Keokuk (APO 565, San Francisco, Cal.) Capt., A.U.S.
 Johnstone, A. C., Keokuk (APO 942, Seattle, Wash.) Col., A.U.S.
 McKee, T. L., Keokuk (Miami Beach, Fla.) Major, A.U.S.
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) Major, A.U.S.
 Rankin, J. R., Keokuk (Memphis, Tenn.) Lt., U.S.N.R.
 Richmond, A. C., Fort Madison (Treasure Island, Cal.) Lt. Comdr., U.S.N.R.
 Steffey, F. L., Keokuk (Port Snelling, Minn.) Capt., A.U.S.
 Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.) Capt., A.U.S.
 Younan, Thomas, Ft. Madison (APO 464, New York, N. Y.) Capt., A.U.S.

Linn County

Andre, G. R., Lisbon (APO 90, Ft. Dix, N. J.) Major, A.U.S.
 Berney, P. W., Cedar Rapids (APO 207, New York, N. Y.) Capt., A.U.S.
 Block, W. M., Cedar Rapids (APO 713, San Francisco, Cal.) Capt., A.U.S.
 Chapman, R. M., Cedar Rapids (Chicago, Ill.) Capt., A.U.S.
 Coughlan, V. H., Coggon (Fort Snelling, Minn.) A.U.S.
 Courter, W. O., Springville (APO 464, New York, N. Y.) Major, A.U.S.
 Downing, J. S., Cedar Rapids (APO 565, San Francisco, Cal.) Major, A.U.S.
 Dunn, F. C., Cedar Rapids (Winfield, Kan.) Major, A.U.S.
 Gearhart, Merriam, Springville (Phoenixville, Pa.) Major, A.U.S.
 Gerstman, Herbert, Marion (Camp Van Dorn, Miss.) Capt., A.U.S.
 Halpin, L. J., Cedar Rapids (APO 17928, San Francisco, Cal.) Major, A.U.S.
 Hecker, J. T., Cedar Rapids (Camp Bowie, Texas) Capt., A.U.S.
 Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.) Lt. Col., A.U.S.
 Keith, J. J., Marion (Menlo Park, Cal.) A.U.S.
 Kieck, E. G., Cedar Rapids (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Krukenberg, W. G., Mount Vernon (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Leedham, C. L., Springville (APO 465, New York, N. Y.) Col., A.U.S.
 Locher, R. C., Cedar Rapids (Camp Gruber, Okla.) Major, A.U.S.
 MacDougal, R. F., Cedar Rapids (APO 9057, New York, N. Y.) Capt., A.U.S.
 McConkie, E. B., Cedar Rapids (Scott Field, Ill.) Major, A.U.S.
 McGuiston, J. S., Cedar Rapids (Fort Warren, Wyo.) Major, A.U.S.
 Meffert, C. B., Cedar Rapids (APO 403, New York, N. Y.) Lt. Col., A.U.S.
 Murray, E. S., Cedar Rapids (APO 787, New York, N. Y.) Major, A.U.S.
 Netolicky, R. Y., Cedar Rapids (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.) 1st Lt., A.U.S.
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.) Major, A.U.S.
 Parke, John, Cedar Rapids (APO 761, New York, N. Y.) Major, A.U.S.
 Proctor, R. D., Cedar Rapids (Corpus Christi, Texas) Comdr., U.S.N.R.
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) Major, A.U.S.
 Rieniets, J. H., Cedar Rapids (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Sedlacek, L. B., Cedar Rapids (APO 244, San Francisco, Cal.) Lt. Col., A.U.S.
 Smrha, J. A., Cedar Rapids (APO 922, San Francisco, Cal.) Capt., A.U.S.
 Stansbury, J. R., Cedar Rapids (Fort Lewis, Wash.) Capt., A.U.S.
 Stark, C. H., Cedar Rapids (Denver, Colo.) Capt., A.U.S.
 Sulek, A. E., Cedar Rapids (APO 244, San Francisco, Cal.) Major, A.U.S.
 Woodhouse, K. W., Cedar Rapids (APO 519, New York, N. Y.) Lt. Col., A.U.S.
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) Major, A.U.S.
 Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.) Lt. Comdr., U.S.N.

Louisa County

DeYarman, K. T., Morning Sun (San Antonio, Texas) Capt., A.U.S.
 Tandy, R. W., Morning Sun (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Lucas County

Lister, K. E., Chariton (Fort Snelling, Minn.) A.U.S.

Lyon County

Cook, S. H., Rock Rapids (Memphis, Tenn.) Major, A.U.S.
 Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Ofag 64, Germany) Capt., A.U.S.
 Moriarty, J. F., Rock Rapids (APO 464, New York, N. Y.) Capt., A.U.S.

Madison County

Boden, H. N., Truro (Fresno, Cal.) Capt., A.U.S.
 Chesnut, P. F., Winterset (Camp Gruber, Okla.) Capt., A.U.S.
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) Capt., A.U.S.
 Wicks, R. L., Winterset (APO 637, New York, N. Y.) Lt. Col., A.U.S.

Mahaska County

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.) Major, A.U.S.
 Bos, H. C., Oskaloosa Major, A.U.S.
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Clark, G. H., Oskaloosa (Mare Island, Cal.) Lt. Comdr., U.S.N.R.
 Greenlee, M. R., Oskaloosa (Port Hueneme, Cal.) Lt. Comdr., U.S.N.R.
 Lemon, K. M., Oskaloosa (APO 637, New York, N. Y.) Capt., A.U.S.
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.) Capt., A.U.S.

Marion County

Elliott, V. J., Knoxville (APO 558, New York, N. Y.) Major, A.U.S.
 Mater, D. A., Knoxville (Lincoln, Neb.) Major, A.U.S.
 Ralston, F. P., Knoxville (Indio, Cal.) Capt., A.U.S.
 Schiek, C. M., Knoxville Lt. Comdr., U.S.N.R.
 Schroeder, M. C., Pella (Houston, Texas) Capt., A.U.S.
 Williams, D. B., Knoxville Capt., A.U.S.

Marshall County

Carpenter, R. C., Marshalltown (APO 678 New York, N. Y.) Capt., A.U.S.
 Marble, E. J., Marshalltown (Fleet PO, Can Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Marble, W. P., Marshalltown (Colorado Springs, Colo.) Major, A.U.S.
 Meyer, M. G., Marshalltown (APO 513, New York, N. Y.) Major, A.U.S.
 Noonan, J. J., Marshalltown (Fort Jackson, S. Car.) Lt. Col., A.U.S.
 Phelps, R. E., State Center (APO 7, San Francisco, Cal.) Capt., A.U.S.
 Sinning, J. E., Melbourne (Camp Haan, Cal.) Capt., A.U.S.
 Smith, E. M., State Center (APO 520, New York, N. Y.) Lt. Col., A.U.S.
 Stegman, J. J., Marshalltown (APO 520, New York, N. Y.) Major, A.U.S.
 Wells, R. C., Marshalltown (Gowen Field, Idaho) Capt., A.U.S.
 Wolfe, O. D., Marshalltown (APO 937, Seattle Wash.) Capt., A.U.S.
 Wolfe, R. M., Marshalltown (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.

Mills County

DeYoung, W. A., Glenwood (APO 228, New York, N. Y.) Capt., A.U.S.
 Magaret, E. C., Glenwood (APO 973, Minneapolis, Minn.) Capt., A.U.S.
 Shonka, T. E., Malvern (APO 403, New York, N. Y.) Capt., A.U.S.

Mitchell County

Culbertson, R. A., St. Ansgar (APO 17928, San Francisco, Cal.) Lt. Col., A.U.S.
 Moore, E. E., Osage (APO 591, New York, N. Y.) Major, A.U.S.
 Owen, W. E., Osage (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
 Walker, T. G., Riceville (Fleet PO, New York, N. Y.) Lt., U.S.N.R.

Monona County

Almer, L. E., Moorhead (Fort Knox, Ky.) Capt., A.U.S.
 Anderson, S. N., Onawa (Great Lakes, Ill.) Lt., U.S.N.R.
 Ganzhorn, H. L., Mapleton (APO 928, San Francisco, Cal.) Capt., A.U.S.
 Gaukel, L. A., Onawa (Fort Riley, Kan.) Capt., A.U.S.
 Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
 Stauch, M. O., Whiting (Fort Lewis, Wash.) Major, A.U.S.
 Wainwright, M. T., Mapleton (APO 17508, New York, N. Y.) Capt., A.U.S.
 Wolpert, P. L., Onawa (Denver, Colo.) Capt., A.U.S.

Monroe County

Gilliland, C. H., Albia (Quonset Point, R. I.) Lt., U.S.N.R.
 Heimann, V. R., Albia (Camp Maxey, Texas) Capt., A.U.S.
 Richter, H. J., Albia (Waco, Texas) Major, A.U.S.
 Smith, R. A., Albia (New Cumberland, Pa.) Capt., A.U.S.

Montgomery County

Bastron, H. C., Red Oak (APO 951, San Francisco, Cal.) Major, A.U.S.
 Hansen, F. A., Red Oak (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Nelson, C. C., Red Oak (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Panzer, E. J. C., Stanton (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
 Rost, G. S., Red Oak (Chickasha, Okla.) Capt., A.U.S.
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) Capt., A.U.S.

Muscatine County

Ady, A. E., West Liberty (Pensacola, Fla.) Comdr., U.S.N.R.
 Asthalter, R. W., Muscatine (Fort Meade, Md.) 1st Lt., A.U.S.
 Carlson, E. H., Muscatine (Milwaukee, Wis.) Capt., A.U.S.
 Goad, R. R., Muscatine (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) Major, A.U.S.
 Lindley, E. L., Muscatine (APO 6, San Francisco, Cal.) Capt., A.U.S.
 Muhs, E. O., Muscatine (APO 578, New York, N. Y.) Major, A.U.S.
 Norem, Walter, Muscatine (APO, Miami, Fla.) Capt., A.U.S.

Robertson, T. A., West Liberty (APO 119, New York, N. Y.) Capt., A.U.S.
 Sywassink, G. A., Muscatine (APO 488-"Y" Forces, New York, N. Y.) Lt. Col., A.U.S.
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.) Lt. Col., A.U.S.

O'Brien County

Getty, E. B., Primghar (APO 176, New York, N. Y.) Capt., A.U.S.
 Hayne, W. W., Paullina (APO 638, New York, N. Y.) Capt., A.U.S.
 Moen, S. T., Hartley (APO 689, New York, N. Y.) Major, A.U.S.
 Myers, K. W., Sheldon (Watertown, S. Dak.) 1st Lt., A.U.S.

Osceola County

Kuntz, G. S., Sibley (APO 34, New York, N. Y.) Capt., A.U.S.

Page County

Barnes, C. A., Shenandoah (Fort Bragg, N. C.) Capt., A.U.S.
 Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.) Capt., A.U.S.
 Bossingham, E. N., Clarinda (Fort Ord, Cal.) Major, A.U.S.
 Bunch, H. McK., Shenandoah (San Diego, Cal.) Lt. Comdr., U.S.N.R.
 Burdick, F. D., Shenandoah Capt., A.U.S.
 Burnett, F. K., Clarinda (Denver, Colo.) Major, A.U.S.
 Rausch, G. R., Clarinda (Sioux City, Iowa) Capt., A.U.S.
 Savage, L. W., Shenandoah (Fort Meade, Md.) 1st Lt., A.U.S.

Palo Alto County

Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.

Plymouth County

Bowers, C. V., LeMars (APO New York, N. Y.) 1st Lt., A.U.S.
 Fish, R. J., LeMars (Denver, Colo.) Capt., A.U.S.
 Foss, R. H., Remsen (Salt Lake City, Utah) Capt., A.U.S.
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.) Capt., A.U.S.

Pocahontas County

Blair, F. L., Jr., Fonda (San Antonio, Texas) Lt., U.S.N.R.
 Herrick, T. G., Gilmore City (APO 9875, New York, N. Y.) Capt., A.U.S.
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.) Capt., A.U.S.
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.) Capt., A.U.S.
 Patterson, A. W., Fonda (Des Moines, Iowa) Capt., A.U.S.

Polk County

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Anderson, N. B., Des Moines (APO 667, New York, N. Y.) Lt. Col., A.U.S.
 Angell, C. A., Des Moines (Ft. Bragg, N. Car.) Capt., A.U.S.
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.) Lt. Col., A.U.S.
 Barner, J. L., Des Moines (Atlanta, Ga.) Major, A.U.S.
 Barnes, B. C., Des Moines (Ogden, Utah) Major, A.U.S.
 Bates, M. T., Des Moines (Corona, Cal.) Lt. Comdr., U.S.N.R.
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Bond, T. A., Des Moines (Shoemaker, Cal.) Lt., U.S.N.R.
 Bone, H. C., Des Moines (Arlington, Cal.) Major, A.U.S.
 Brown, A. W., Des Moines (APO 5934, New York, N. Y.) Capt., A.U.S.
 Bruner, J. M., Des Moines (Camp Berkeley, Texas) Major, A.U.S.
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 †Burgeson, F. M., Des Moines (Gefangenennummer 1480, Lager-Bezeichnung: Kriegsgef-Offizierlager XXI B, Deutschland (Allemagne)) Capt., A.U.S.
 Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada) Flight Lt., R.C.A.F.
 Chambers, J. W., Des Moines (APO 648, New York, N. Y.) Capt., A.U.S.
 Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.) Capt., A.U.S.
 Connell, J. R., Des Moines (Phoenixville, Pa.) Major, A.U.S.
 Corn, H. H., Des Moines (Douglas, Wyo.) Capt., A.U.S.
 Coughlan, D. W., Des Moines (APO 689, New York, N. Y.) Capt., A.U.S.
 Crowley, D. F., Jr., Des Moines (Presque Isle, Me.) Capt., A.U.S.
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.) Capt., A.U.S.
 DeCicco, Ralph, Des Moines (APO 952, San Francisco, Cal.) Capt., A.U.S.
 Decker, H. G., Des Moines (Long Beach, Cal.) Lt. Comdr., U.S.N.R.
 Downing, A. H., Des Moines (Ft. Snelling, Minn.) 1st Lt., A.U.S.
 Dushkin, M. A., Des Moines (APO 689, New York, N. Y.) Lt. Col., A.U.S.
 Elliott, O. A., Des Moines (Pecos, Texas) Capt., A.U.S.
 Ellis, H. G., Des Moines (APO 710, San Francisco, Cal.) Capt., A.U.S.
 Ervin, L. J., Des Moines (Lubbock, Texas) Lt. Col., A.U.S.
 Fleck, W. L., Des Moines (Ft. Howard, Md.) Lt. Col., A.U.S.
 Fried, David, Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Fracasse, John, Des Moines 1st Lt., A.U.S.
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Gerchek, E. W., Des Moines

Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.) Major, A.U.S.
 Glomset, D. A., Des Moines (APO 9826 New York, N. Y.) Capt., A.U.S.
 Goldberg, Louie, Des Moines (APO 9764, San Francisco, Cal.) Capt., A.U.S.
 Gordon, A. M., Des Moines (APO 763, New York, N. Y.) Capt., A.U.S.
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Greek, L. M., Des Moines (APO 512, New York, N. Y.) Capt., A.U.S.
 Gurau, H. H., Des Moines (Malden, Mo.) Capt., A.U.S.
 Haines, D. J., Des Moines (APO 453, San Francisco, Cal.) Capt., A.U.S.
 Harris, D. D., Des Moines (Gulfport, Miss.) Lt. Comdr., U.S.N.R.
 Harris, H. L., Des Moines (Salina, Kan.) 1st Lt., A.U.S.
 Hess, John, Jr., Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 James, A. D., Des Moines (Fort Eustis, Va.) Comdr., U.S.N.R.
 Johnston, C. H., Des Moines (APO 639, New York, N. Y.) Lt. Col., A.U.S.
 Kast, D. H., Des Moines (Los Angeles, Cal.) Capt., A.U.S.
 Kelley, E. J., Des Moines (Columbus, Ohio) Lt. Comdr., U.S.N.R.
 Kelly, D. H., Des Moines (Denver, Colo.) Lt. Col., A.U.S.
 Kirch, W. A. W., Des Moines (Astoria, Ore.) Lt. Comdr., U.S.N.R.
 Klockslem, H. L., Des Moines (APO New York, N. Y.) Capt., A.U.S.
 Kottke, E. E., Des Moines (Temple, Texas) Capt., A.U.S.
 Landis, S. N., Des Moines (West Palm Beach, Fla.) 1st Lt., A.U.S.
 La Tona, Salvatore, Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Lederman, James, Des Moines 1st Lt., R.C.A.
 Lehman, E. W., Des Moines (APO 11115, San Francisco, Cal.) Major, A.U.S.
 Losh, C. W., Jr., Des Moines (APO 209, New York, N. Y.) 1st Lt., A.U.S.
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Malone, P. J., Des Moines (Fort Lewis, Wash.) 1st Lt., A.U.S.
 Marquis, G. S., Des Moines (Brooklyn, N. Y.) Lt. Comdr., U.S.N.R.
 Martin, L. E., Des Moines (Helena, Ark.) 1st Lt., A.U.S.
 Matheson, J. H., Des Moines (San Leandro, Cal.) Lt. Comdr., U.S.N.R.
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.) Capt., A.U.S.
 McCoy, H. J., Des Moines (Iowa City, Iowa) Comdr., U.S.N.R.
 McDonald, D. J., Des Moines (APO 339, New York, N. Y.) Major, A.U.S.
 McNamee, J. H., Des Moines (San Diego, Cal.) Lt. Comdr., U.S.N.R.
 Mencher, E. W., Des Moines 1st Lt., A.U.S.
 Merkel, B. M., Des Moines (APO 520, New York, N. Y.) Major, A.U.S.
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.) Capt., A.U.S.
 Morden, R. P., Des Moines (APO 635, New York, N. Y.) Capt., A.U.S.
 Mumma, C. S., Des Moines (Los Angeles, Cal.) Major, A.U.S.
 Murphy, J. H., Des Moines (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Nelson, A. L., Des Moines (Camp Livingston, La.) Major, A.U.S.
 Noun, L. J., Des Moines (Camp Peary, Va.) Lt., U.S.N.R.
 Noun, M. H., Des Moines (APO 228, New York, N. Y.) Major, A.U.S.
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.) Lt., U.S.N.
 Patton, B. W., Des Moines (Camp Robinson, Ark.) 1st Lt., A.U.S.
 Pearlman, L. R., Des Moines (Camp Gruber, Okla.) Major, A.U.S.
 Peisen, C. J., Des Moines (APO 165, New York, N. Y.) Capt., A.U.S.
 Penn, E. C., West Des Moines (APO 650, New York, N. Y.) Capt., A.U.S.
 Pfeiffer, E. P., Des Moines (APO 11043, San Francisco, Cal.) Capt., A.U.S.
 Phillips, A. B., Des Moines (Corona, Cal.) Lt., U.S.N.R.
 Porter, R. J., Des Moines (APO 635, New York, N. Y.) Capt., A.U.S.
 Powell, L. D., Des Moines (Oceanside, Cal.) Capt., U.S.N.R.
 Pratt, E. B., Des Moines (APO New York, N. Y.) Major, A.U.S.
 Priestley, J. B., Des Moines (Camp Crowder, Mo.) Lt. Col., A.U.S.
 Purdy, W. O., Des Moines (APO 5935, New York, N. Y.) Capt., A.U.S.
 Riegelman, R. H., Des Moines (APO 634, New York, N. Y.) Major, A.U.S.
 Robinson, V. C., Des Moines (Gulfport, Miss.) Major, A.U.S.
 Rotkow, M. J., Des Moines (Ft. Benj. Harrison, Ind.) Capt., A.U.S.
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Schlaser, V. L., Des Moines (Fleet PO, San Francisco, Cal.) Lt., U.S.N.
 Shepherd, L. K., Des Moines (APO New York, N. Y.) Major, A.U.S.
 Shiffler, H. K., Des Moines (APO 230, New York, N. Y.) Capt., A.U.S.
 Singer, P. L., Des Moines (Camp Grant, Ill.) 1st Lt., A.U.S.
 Skultety, J. A., Des Moines (New Orleans, La.) P. A. Surg., U.S.P.H.S.
 Smead, H. H., Des Moines (APO 595, New York, N. Y.) Capt., A.U.S.

Smith, H. J., Des Moines (Chicago, Ill.).....Lt., U.S.N.R.
 Smith, R. T., Des Moines (APO 713, Unit 1, San Francisco, Cal.).....Capt., A.U.S.
 *Snodgrass, R. W., Des Moines (APO 9528, New York, N. Y.).....Capt., A.U.S.
 Snyder, G. E., Grimes (APO 264, San Francisco, Cal.).....Major, A.U.S.
 Sohn, H. A., Des Moines.....Lt. Comdr., U.S.N.R.
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 Stitt, P. L., Des Moines (Seattle, Wash.).....Lt. (jg), U.S.N.R.
 Throckmorton, J. F., Des Moines (APO 339, New York, N. Y.).....Major, A.U.S.
 Toubes, A. A., Des Moines (APO 635, New York, N. Y.).....Capt., A.U.S.
 Turner, H. V., Des Moines (Camp Fannin, Texas).....Capt., A.U.S.
 Updegraff, Thomas, Des Moines (Spokane, Wash.).....1st Lt., A.U.S.
 Van Hale, L. A., Des Moines (APO 515, New York, N. Y.).....Capt., A.U.S.
 Vaubel, E. K., Des Moines (Washington, D. C.).....Capt., A.U.S.
 Wagner, E. C., Des Moines (Washington, D. C.).....1st Lt., A.U.S.
 Willett, W. M., Des Moines (APO 507, New York, N. Y.).....Capt., A.U.S.
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Zarchy, A. C., Des Moines (Camp Cooke, Cal.).....Capt., A.U.S.

Pottawattamie County

†Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.).....Major, A.U.S.
 Collins, R. M., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Dean, A. M., Council Bluffs (Pensacola, Fla.).....Comdr., U.S.N.R.
 Edwards, C. V., Council Bluffs (Pensacola, Fla.).....Lt. Comdr., U.S.N.R.
 Floersch, E. B., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Hennessy, J. D., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Jensen, A. L., Council Bluffs (Temple, Texas).....Lt. Col., A.U.S.
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.).....Lt., U.S.N.R.
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.).....Capt., A.U.S.
 Lambert, E. M., Council Bluffs (APO 403, New York, N. Y.).....Major, A.U.S.
 Maiden, S. D., Council Bluffs (Camp Hood, Texas).....Major, A.U.S.
 Martin, L. R., Council Bluffs (San Francisco, Cal.).....Capt., A.U.S.
 Mathiasen, H. W., Neola (Alexandria, La.).....Capt., A.U.S.
 Moskovitz, J. M., Council Bluffs (APO 403, New York, N. Y.).....Capt., A.U.S.
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.).....Capt., A.U.S.
 Standeven, W., Oakland (Colorado Springs, Colo.).....Capt., A.U.S.
 Sternhill, Isaac, Council Bluffs (Springfield, Mo.).....Capt., A.U.S.
 Tinley, R. E., Council Bluffs (APO 600, New York, N. Y.).....Major, A.U.S.
 Treynor, J. V., Council Bluffs (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 West, A. G., Council Bluffs (APO 230, New York, N. Y.).....Capt., A.U.S.
 Wessler, R. J., Avoca (McChord Field, Wash.).....A.U.S.
 Wurl, O. A., Council Bluffs (APO 887, New York, N. Y.).....Major, A.U.S.

Poweshiek County

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 Hickerson, L. C., Brooklyn (APO 559, New York, N. Y.).....Capt., A.U.S.
 Korfmacher, E. S., Grinnell (APO 92, San Francisco, Cal.).....Capt., A.U.S.
 Niemann, T. V., Brooklyn (APO 43, San Francisco, Cal.).....Capt., A.U.S.
 Parish, J. R., Grinnell (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Somers, P. E., Grinnell (St. Louis, Mo.).....1st Lt., A.U.S.

Ringgold County

Seaman, C. L., Mount Airy (Fort Smith, Ark.).....Major, A.U.S.

Sac County

Bassett, G. H., Sac City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 Deters, D. C., Schaller (APO 34, New York, N. Y.).....Capt., A.U.S.
 Evans, W. I., Sac City (APO 9212, New York, N. Y.).....Capt., A.U.S.
 Klockslem, R. G., Odebolt (Oceanside, Cal.).....Lt., U.S.N.R.
 Neu, H. N., Sac City (APO 708, San Francisco, Cal.).....Lt. Col., A.U.S.

Scott County

Baker, R. W., Davenport (APO 511, New York, N. Y.).....Capt., A.U.S.
 Balzer, W. J., Davenport (APO 17665, New York, N. Y.).....Capt., A.U.S.
 Bishop, J. F., Davenport (Camp Wheeler, Ga.).....Capt., A.U.S.
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 Sorensen, A. C., Davenport (Oakland, Cal.).....Comdr., U.S.N.R.
 Sunderbruch, J. H., Davenport (APO 322, San Francisco, Cal.).....Capt., A.U.S.
 Weinberg, H. B., Davenport (APO 5587, San Francisco, Cal.).....Major, A.U.S.
 Zukerman, C. M., Bettendorf (Chicago, Ill.).....Capt., A.U.S.

Shelby County

Bisgard, C. V., Harlan (Farragut, Idaho).....Lt. Comdr., U.S.N.R.
 Griffith, W. O., Shelby (APO 9490, New York, N. Y.).....Capt., A.U.S.
 McGowan, J. P., Harlan (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

Sioux County

Gleysteen, R. R., Alton (Portsmouth, Va.).....Lt. Comdr., U.S.N.
 Grossmann, E. B., Orange City (APO 572, New York, N. Y.).....Capt., A.U.S.
 Larson, M. O., Hawarden (APO 562, New York, N. Y.).....Lt. Col., A.U.S.
 Oelrich, A. M., Hull (APO New York, N. Y.).....1st Lt., A.U.S.
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.).....1st Lt., A.U.S.

Story County

Conner, J. D., Nevada (APO 708, San Francisco, Cal.).....Capt., A.U.S.
 Fellows, J. G., Ames (APO 451, New York, N. Y.).....Major, A.U.S.
 Lekwa, A. H., Story City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 McFarland, G. E., Jr., Ames (San Pedro, Cal.).....Lt., U.S.N.R.
 McFarland, J. E., Ames (Seattle, Wash.).....Lt. Comdr., U.S.N.R.
 Rosebrook, L. E., Ames (APO 433, New York, N. Y.).....Major, A.U.S.
 Sperow, W. B., (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Thorburn, O. L., Ames (Alamagordo, N. Mex.).....Major, A.U.S.
 Wall, David, Ames (Ft. Dix, N. J.).....1st Lt., A.U.S.

Tama County

Bezman, H. S., Traer (APO 9875, New York, N. Y.).....Capt., A.U.S.
 Boller, G. C., Traer (Ft. Riley, Kansas).....Capt., A.U.S.
 Dobias, S. G., Chelsea (San Francisco, Cal.).....Capt., A.U.S.
 Havlik, A. J., Tama (San Diego, Cal.).....Lt., U.S.N.R.
 Schaeferle, L. G., Gladbrook (Fort Leonard Wood, Mo.).....Lt., U.S.N.R.
 Standefer, J. M., Tama (Des Moines, Iowa).....Lt., U.S.N.R.

Taylor County

Hardin, J. F., Bedford (APO 952, San Francisco, Cal.).....1st Lt., A.U.S.

Union County

Beatty, H. G., Creston (New Orleans, La.).....1st Lt., A.U.S.
 Paragas, M. R., Creston (APO 442, San Francisco, Cal.).....Capt., A.U.S.
 Ryan, C. J., Creston (Scribner, Neb.).....Capt., A.U.S.

Wapello County

Brentan, Emanuel, Ottumwa (APO 252, New York, N. Y.).....1st Lt., A.U.S.
 Brody, Sidney, Ottumwa.....Lt. Col., A.U.S.
 Gilfillan, C. D. N., Eldon (Battle Creek, Mich.).....Capt., A.U.S.
 Hughes, R. O., Ottumwa (Coronado, Cal.).....Lt. Comdr., U.S.N.R.
 Moore, G. C., Ottumwa (APO 17508, New York, N. Y.).....Capt., A.U.S.
 Nelson, F. L., Jr., Ottumwa.....Capt., A.U.S.
 Prewitt, L. H., Ottumwa (Atlantic City, N. J.).....Major, A.U.S.
 Selman, R. J., Ottumwa (El Paso, Texas).....Col., A.U.S.
 Struble, G. C., Ottumwa (Fort Harrison, Ind.).....Lt. Col., A.U.S.

Whitehouse, W. N., Ottumwa (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
Wolfe, W. C., Ottumwa (Fleet PO, San Francisco, Cal.)Lt. (jg) U.S.N.R.

Warren County

Fullgrabe, E. A., Indianola (San Diego, Cal.).....Lt., U.S.N.R.
Hoffman, G. R., Lacona (Camp San Louis Obispo, Cal.)Capt., A.U.S.
Shaw, E. E., Indianola (APO 834, New Orleans, La.)Capt., A.U.S.
Trueblood, C. A., Indianola (APO 871, New York, N. Y.)Capt., A.U.S.

Washington County

Boice, C. L., Washington (Fleet PO, New York, N. Y.).....Lt., U.S.N.
Droz, A. K., Washington (Fleet PO, San Francisco, Cal.)Comdr., U.S.N.R.
Mast, T. M., Washington (Seattle, Wash.).....Lt. Comdr., U.S.N.R.
Miller, J. R., Wellman (Camp Breckenridge, Ky.).....1st Lt., A.U.S.
Stutsman, R. E., Washington (Fleet PO, San Francisco, Cal.)Lt., U.S.N.R.
Ware, S. C., Kalona (APO 15275, New York, N. Y.).....Capt., A.U.S.

Wayne County

Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.)Capt., A.U.S.

Webster County

Baker, C. J., Fort Dodge (APO New York, N. Y.).....Major, A.U.S.
Burch, E. S., Dayton (APO 709, San Francisco, Cal.)Capt., A.U.S.
Burlison, M. W., Fort Dodge (Pasadena, Cal.).....Capt., A.U.S.
Coughlan, C. H., Fort Dodge (Fort Des Moines, Iowa)Major, A.U.S.
Dawson, E. B., Fort Dodge (San Diego, Cal.)Lt. Comdr., U.S.N.R.
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Shrader, J. C., Fort Dodge (APO 758, New York, N. Y.)Lt. Col., A.U.S.
*Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.)Capt., A.U.S.
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Van Patten, E. M., Ft. Dodge (El Paso, Texas).....Capt., A.U.S.

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Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.)Lt. Col., A.U.S.
Howard, W. H., Decorah.....Capt., A.U.S.
Larson, L. E., Decorah (Fleet PO, San Francisco, Cal.)Lt. Comdr., U.S.N.R.
Svensden, R. N., Decorah (San Diego, Cal.).....Lt. (jg), U.S.N.R.
Van Besien, G. J., Decorah (Springfield, Mo.).....Capt., A.U.S.

Woodbury County

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Blackstone, M. A., Sioux City (Camp Stoneman, Cal.)Capt., A.U.S.
Boe, Henry, Sioux City (Fort Snelling, Minn.).....Capt., A.U.S.
Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.)Lt., U.S.N.R.
†Cmeyla, P. M., Sioux City (P.O.W., c/o Japanese Red Cross, Tokyo, Japan)Capt., A.U.S.
Cowan, J. A., Sioux City (Oklahoma City, Okla.)Major, U.S.P.H.S.
Crowder, R. E., Sioux City (Kansas City, Mo.)Lt. Comdr., U.S.N.R.
Dimsdale, L. J., Sioux City (Clinton, Iowa).....Capt., A.U.S.
Down, H. I., Sioux City (APO 758, New York, N. Y.)Lt. Col., A.U.S.
Elson, V. J., Danbury (APO 9875, New York, N. Y.)Capt., A.U.S.
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Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.)Capt., A.U.S.
Harris, D. M., Sioux City (Camp Shelby, Miss.).....Capt., A.U.S.
Heffernan, C. E., Sioux City (Fairmont, Nebr.).....Capt., A.U.S.
Hicks, W. K., Sioux City (Spokane, Wash.).....Major, A.U.S.
Honke, E. M., Sioux City (Palm Springs, Cal.).....Major, A.U.S.
Kaplan, David, Sioux City (APO 36, New York, N. Y.)Capt., A.U.S.
Knott, P. D., Sioux City (Camp Crowder, Mo.).....Capt., A.U.S.
Knott, R. C., Sioux City (APO 403, New York, N. Y.)Major, A.U.S.
Kristgen, W. M., Sioux City (Springfield, Mo.).....Lt. Col., A.U.S.
Lande, J. N., Sioux City (APO 63, New York, N. Y.) Major, A.U.S.
Martin, R. F., Sioux City (APO 403, New York, N. Y.)Capt., A.U.S.
Mattice, L. H., Danbury (APO 713, San Francisco, Cal.)1st Lt., A.U.S.
McQuiston, H. M., Sioux City (APO 209, New York, N. Y.)Capt., A.U.S.
Mugan, R. C., Sioux City (Miami Beach, Fla.).....Capt., A.U.S.
Osincup, P. W., Sioux City (APO 520, New York, N. Y.)Capt., A.U.S.
Rarick, I. H., Sioux City (Camp Pinedale, Cal.).....Capt., A.U.S.
Reeder, J. E., Jr., Sioux City (APO 209, New York, N. Y.)Capt., A.U.S.
Ryan, M. J., Sioux City (Topeka, Kan.).....Major, A.U.S.

Schwartz, J. W., Sioux City (APO 883, New York, N. Y.)Lt. Col., A.U.S.
Tracy, J. S., Sioux City (Camp Van Dorn, Miss.).....Major, A.U.S.

Worth County

Westly, G. S., Manly (APO 4580, San Francisco, Cal.)Major, A.U.S.

Wright County

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Bird, R. G., Clarion (Fleet PO, San Francisco, Cal.)Lt. Comdr., U.S.N.R.
Doles, E. A., Clarion (Spokane, Wash.).....Capt., A.U.S.
Gorrell, R. L., Clarion (Denver, Colo.).....P.A. Surg., U.S.P.H.S.
Leinbach, S. P., Belmond (Farragut Air Base, Idaho)
Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.)Capt., A.U.S.

- (*) Reported missing in action.
(†) Reported killed in action.
(‡) Reported prisoner of war.

EXAMINATIONS FOR THE AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The next written examination and review of case histories (Part I) for all candidates will be held in various cities of the United States and Canada on Saturday, February 3, 1945, at 2:00 p. m.

Arrangements will be made so far as is possible for candidates in military service to take the Part I examination (written paper and submission of case records) at their places of duty, the written examination to be proctored by the Commanding Officer (medical) or some responsible person designated by him. Material for the written examination will be sent to the proctor several weeks in advance of the examination date. Candidates for the February 3, 1945, Part I examination, who are entering military service, or who are now in service and may be assigned to foreign duty, may submit their case records in advance of the above date, by forwarding them to the office of the Board Secretary. All other candidates should present their case records to the examiner at the time and place of taking the written examination.

The office of the Surgeon-General (U. S. Army) has issued instructions that men in service, eligible for Board examinations, be encouraged to apply and that they may request orders to detached duty for the purpose of taking these examinations whenever possible.

All candidates will be required to take both the Part I examination, and the Part II examination (oral-clinical and pathology examination). Candidates who successfully complete the Part I examination proceed automatically to the Part II examination to be held later in the year.

Notice of the exact time of the Part II examinations will be sent all candidates well in advance of the examination date. Candidates in military or naval service are requested to keep the Secretary's office informed of any change in address.

If a candidate in service finds it impossible to proceed with the examinations of the board, deferment without time penalty will be granted under a waiver of our published regulations as they apply to civilian candidates.

Applications for the 1945 examinations are now closed.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh 6, Pennsylvania.

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Decatur.....	H. M. Hills, Lamoni.....	Paul Stephen, Manchester.....	H. C. Young, Bloomfield
Delaware.....	C. B. Rogers, Earlville.....	W. R. Lee, Burlington.....	F. A. Bowman, Leon
Des Moines.....	D. F. Huston, Burlington.....	Ruth F. Wolcott, Spirit Lake.....	J. K. Stepp, Manchester
Dickinson.....	T. L. Ward, Arnolds Park.....	J. W. Lawrence, Dubuque.....	F. G. Ober, Burlington
Dubuque.....	H. E. Thompson, Dubuque.....	L. W. Loving, Estherville.....	T. L. Ward, Arnolds Park
Emmett.....	C. E. Birney, Estherville.....	A. F. Grandmett, Oelwein.....	C. K. Kirkegaard, Estherville
Fayette.....	C. C. Hall, Maynard.....	R. A. Fox, Charles City.....	C. C. Hall, Maynard
Floyd.....	L. S. Wentworth, Marble Rock.....	F. L. Siberts, Hampton.....	R. A. Fox, Charles City
Franklin.....	J. C. Powers, Hampton.....	A. E. Wanamaker, Hamburg.....	J. C. Powers, Hampton
Fremont.....	Ralph Lovelady, Sidney.....	G. A. Bibbesheimer, Reinbeck.....	A. E. Wanamaker, Hamburg
Greene.....	L. C. Nelson, Jefferson.....	M. B. Galloway, Webster City.....	W. O. McDowell, Grundy Center
Grundy.....	C. H. Bartruff, Reinbeck.....	W. F. Missman, Klemme.....	M. B. Galloway, Webster City
Hamilton.....	C. V. Hamilton, Garner.....	F. N. Cole, Iowa Falls.....	C. V. Hamilton, Garner
Hancock-Winnebag.....	C. V. Hamilton, Garner.....	F. N. Cole, Iowa Falls.....	G. F. Dolmage, Buffalo Center
Hardin.....	G. A. Blaha, Whitten.....	F. H. Hanson, Magnolia.....	F. N. Cole, Iowa Falls
Harrison.....	R. H. Cutler, Little Sioux.....	J. S. Jackson, Mt. Pleasant.....	S. W. Huston, Mt. Pleasant
Henry.....	S. W. Huston, Mt. Pleasant.....	F. E. Giles, Cresco.....	W. A. Bockoven, Cresco
Howard.....	W. A. Bockoven, Cresco.....	C. A. Newman, Bode.....	I. T. Schultz, Humboldt
Humboldt.....	L. R. Turner, Renwick.....	W. P. Crane, Holstein.....	E. S. Parker, Ida Grove
Ia.....	H. H. Harris, Battle Creek.....	I. J. Sinn, Williamsburg.....	I. J. Sinn, Williamsburg
Iowa.....	E. L. Hollis, Marengo.....	T. D. Wright, Newton.....	R. W. Wood, Newton
Jackson.....	B. B. Dwyer, Preston.....	I. N. Crow, Fairfield.....	I. N. Crow, Fairfield
Jasper.....	R. F. Frech, Newton.....	C. R. Smith, Onslow.....	G. C. Albright, Iowa City
Jefferson.....	G. Cook, Fairfield.....	John Maxwell, What Cheer.....	T. M. Redmond, Monticello
Johnson.....	M. L. Floyd, Iowa City.....	M. G. Bourne, Algona.....	T. M. Redmond, Monticello
Jones.....	J. D. Paul, Anamosa.....	H. F. Noble, Fort Madison.....	J. G. Clapsaddle, Burt
Keokuk.....	T. J. C. Dulin, Sigourney.....	B. L. Gilfillan, Keokuk.....	R. L. Feightner, Ft. Madison
Kossuth.....	J. W. McCreery, Whittemore.....	B. F. Wolvorton, Cedar Rapids.....	B. L. Feightner, Ft. Madison
Lee.....	W. M. Hogle, Keokuk.....	J. L. Klein, Jr., Muscatine.....	B. F. Wolvorton, Cedar Rapids
Linn.....	B. J. Moon, Cedar Rapids.....	W. S. Balkema, Sheldon.....	J. H. Chittum, Wapello
Louisa.....	J. W. Pence, Columbus Junction.....	H. B. Paulsen, Harris.....	J. H. Chittum, Wapello
Lucas.....	H. D. Jarvis, Chariton.....	J. F. Aldrich, Shenandoah.....	S. L. Throckmorton, Chariton
Lyon.....	H. E. Carver, Earlham.....	P. O. Nelson, Emmetsburg.....	G. M. DeYoung, George
Madison.....	L. F. Catterson, Oskaloosa.....	L. C. O'Toole, Le Mars.....	C. B. Hickenlooper, Winterset
Mahaska.....	F. M. Roberts, Knoxville.....	G. A. Everson, Rolfe.....	L. F. Catterson, Oskaloosa
Marion.....	B. S. Wells, Marshalltown.....	E. W. Anderson, Des Moines.....	E. C. McClure, Bussey
Marshall.....	T. B. Lacey, Glenwood.....	G. V. Caughlan, Council Bluffs.....	A. D. Woods, State Center
Mitchell.....	G. E. Krepelka, Osage.....	J. W. Hill, Mt. Airy.....	D. W. Harman, Glenwood
Monona.....	E. J. Liska, Ute.....	J. W. Gauger, Early.....	T. S. Walker, Riceville
Monroe.....	J. F. Stafford, Lovilia.....	L. J. Miltner, Davenport.....	C. W. Young, Onawa
Montgomery.....	Gladys Cooper, Red Oak.....	T. A. Moran, Melrose.....	T. A. Moran, Melrose
Muscatine.....	L. C. Howe, Muscatine.....	Velura E. Powell, Red Oak.....	T. F. Beveridge, Muscatine
O'Brien.....	C. A. Samuelson, Sheldon.....	J. L. Klein, Jr., Muscatine.....	T. F. Beveridge, Muscatine
Osceola.....	E. P. Farnum, Sibley.....	W. B. Armstrong, Ames.....	W. R. Brock, Sheldon
Page.....	N. M. Johnson, Clarinda.....	G. M. Dalbey, Traer.....	Frank Reinsch, Ashton
Palo Alto.....	J. P. McManus, Grattinger.....	J. H. Gasson, Bedford.....	W. H. Maloy, Shenandoah
Plymouth.....	M. J. Joynt, Le Mars.....	C. E. Sampson, Creston.....	H. L. Brereton, Emmetsburg
Pocahontas.....	W. E. Gower, Pocahontas.....	J. A. Craig, Keosauqua.....	W. L. Downing, Le Mars
Polk.....	C. B. Luginbuhl, Des Moines.....	L. A. Coffin, Farmington.....	J. H. Synhorst, Des Moines
Pottawattamie.....	F. E. Marsh, Council Bluffs.....	E. B. Hoeven, Ottumwa.....	G. N. Best, Council Bluffs
Poweshiek.....	W. B. Phillips, Montezuma.....	C. H. Mitchell, Indianola.....	C. E. Harris, Grinnell
Ringgold.....	O. L. Fullerton, Redding.....	E. D. Miller, Wellman.....	E. J. Watson, Diagonal
Sac.....	A. L. Blum, Wall Lake.....	L. C. Kuhn, Decorah.....	J. R. Dewey, Schaller
Scott.....	A. A. Garside, Davenport.....	D. B. Blume, Sioux City.....	A. P. Donohoe, Davenport
Shelby.....	J. P. McGowan, Harlan.....	S. S. Westly, Manly.....	A. L. Nielson, Harlan
Sioux.....	A. L. Lock, Rock Valley.....	J. R. Christensen, Eagle Grove.....	Wm. Doornink, Orange City
Story.....	Julia Cole, Ames.....	J. H. Sams, Clarion.....	Wm. Doornink, Orange City
Tama.....	F. W. Gessner, Dysart.....		Bush Houston, Nevada
Taylor.....	C. E. Buckley, Blockton.....		A. A. Pace, Toledo
Union.....	J. A. Liken, Creston.....		G. W. Rimel, Bedford
Van Buren.....	Roscoe Pollock, Douds-Leando.....		
Wapello.....	V. S. Downs, Ottumwa.....		
Warren.....	G. A. Jardine, New Virginia.....		
Washington.....	W. L. Alcorn, Washington.....		
Wayne.....	D. R. Ingraham, Sewal.....		
Webster.....	E. F. Beeh, Fort Dodge.....		
Winnebush.....	V. J. Horton, Calmar.....		
Woodbury.....	R. N. Larimer, Sioux City.....		
Worth.....	B. H. Osten, Northwood.....		
Wright.....	G. E. Schnug, Dows.....		

WOMAN'S AUXILIARY NEWS

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HEALTH QUESTIONS ANSWERED BY W. W. BAUER, M.D.

1. Is nail polish harmful or beneficial to the nails?
Nail polish itself is not harmful, but excessive use of the buffer, by creating heat, might be detrimental. Liquid nail polishes are harmless unless the individual is sensitized to the pigments or the solvent, but excessive use of the "remover" may cause nails to split and break.
2. Will going without a hat encourage the growth of hair or stop falling hair? Is there any harm in going bareheaded?
Going hatless becomes the vogue from time to time, and the question arises as to whether there is any harm in it. Within reason, there is not, but exposure of the uncovered head to extreme cold in winter or to the powerful rays of the sun in mid-summer, as is often done, is silly and pointless, and may be dangerous. Hatlessness is no assurance of luxuriant foliage aloft. Too much sunlight may bleach and coarsen the hair. Too much water dries it out.
3. What is the real cause of gray hair? Is gray hair due to lack of meat in the diet?
Nobody knows the cause. Lack of meat is not responsible. Hair may be dyed, at possible though perhaps remote risk of irritation of the skin and generalized poisoning, with dyes which give good-looking results; namely, the aniline dyes. Metallic dyes are either too dangerous or too inefficient to consider. Hair may be dyed with practically complete safety by the use of dyes whose cosmetic acceptability is questionable. Any claim that a prep-

aration of a beauty operator can do more is unfounded.

4. In buying commercially canned fruits is it preferable to secure those that have been canned the same season?

No, since properly canned foods keep a long time.

5. Should one in fair health past sixty drink coffee each morning?

There is no reason why one should not unless specifically forbidden by a physician.

6. What brand of bran is best?

The commercial brand of bran chosen is of little consequence, especially now that bran products must be labeled to show the exact percentage of bran contained in each. The important question is whether the patient should have bran at all, a question properly decided in the physician's consulting room and not on the advertising pages of even our "best" magazines.

7. Is it necessary to give cod liver oil to children who are healthy and slightly overweight?

A vitamin D preparation equivalent to cod liver oil should always be given to children, even if they are overweight, since it is the vitamin content and not primarily the oil which constitutes the customary reason for using it.

8. Under what conditions do poisons develop in foods, especially those warmed over?

Poisons may develop in foods, cooked or uncooked, from the growth of germs in them. Cream fillings in bakery goods, which are often allowed to stand to ripen, may become infected, and make excellent food for bacterial growth; such cream fillings should be eaten fresh only.

DALLAS-GUTHRIE AUXILIARY MEETING

The Woman's Auxiliary to the Dallas-Guthrie Medical Society met October 19 at Panora with ten members and two guests present. The nominating committee presented the following names for officers for 1945: president, Mrs. K. M. Chapler, Dexter; president-elect, Mrs. E. J. Butterfield, Dallas Center; first vice president, Mrs. A. J. Ross, Perry; second vice president, Mrs. J. A. Pringle, Bagley; secretary, Mrs. H. W. Smith, Woodward; and treasurer, Mrs. W. V. Thornburg, Guthrie Center. Mrs. E. T. Warren of Stuart gave an outline of the new constitution adopted at the national meeting in Chicago, and Mrs. C. A. Nicoll of Panora gave an interesting talk on her experiences as "An Army Wife." A gift of home canned fruit and vegetables was sent to an invalid member of our Auxiliary.

Mrs. P. W. Beckman, Perry

WAR SERVICE ACTIVITIES

It is hoped that every Auxiliary will be able under the guidance of its local advisory committee to develop a successful program for War Service. Questionnaires are sent out early in the year to the state chairmen and records of war work done are reported to the regional chairmen at the end of the

year in hours and total value of war bonds and stamps sold. Iowa is in the North Central Region, which comprises twelve states: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Ohio, North Dakota, South Dakota, and Wisconsin. Mrs. Rollo K. Packard of Chicago is the General Chairman and Mrs. M. C. Hennessy of Council Bluffs is State Chairman for Iowa.

It is suggested that Auxiliary members participate in the following activities: The sale of war bonds and stamps; hospital service; doctor's aide corps; minute maids; day nurseries for children of women in industry; study of nutrition and distribution of food; assisting at canteens and military camps; rationing boards; Red Cross; and recruitment of U. S. Cadet Nurse Corps.

Our Auxiliaries do a tremendous amount of War Service. The North Central Region reported 409,161 hours of War Service and \$175,245 in war bonds and stamps sold in 1944-1945. We hope to have a decided increase this year.

Mrs. F. W. Mulsow, Regional Chairman,
War Service Committee,
Woman's Auxiliary to the American
Medical Association.

FACTS CONCERNING HYGIEA*

1. HYGIEA prints *authentic* health information.
2. HYGIEA gives in clear, concise and simple terms scientific knowledge of the medical world that even the school child will understand.
3. HYGIEA gives reliable information regarding quacks, faddists and cultists. It is a safeguard against ignorance. The American public squanders more than four million dollars annually on patent medicines.
4. HYGIEA is packed with up-to-date reliable health information for the teacher.
5. HYGIEA teaches how to form health habits intelligently.
6. HYGIEA serves as a text and reference book.
7. HYGIEA deals with the simple but fundamental principles of health that affect daily living in homes, schools and communities.
8. HYGIEA contains child welfare articles for mothers who are helping their children form health habits.
9. HYGIEA gives good sound health advice to the business man and woman regarding how much and what kind of food, exercise, rest and sleep they should have.
10. HYGIEA is the medium of conveying to the people who are not patients of the medical profession, scientific information concerning the prevention of disease.
11. HYGIEA is a clearing house for health news and views and health activity in all parts of the world.
12. HYGIEA gives health information, but each article emphasizes the intrinsic value of YOUR FAMILY PHYSICIAN.

*From "Hygeia Handbook" 1944-45.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

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Medical History of Wapello County

CLYDE A. HENRY, M.D., Farson

Part III

(Continued from November)

ORGANIZATION OF COUNTY MEDICAL SOCIETY

At the beginning of the second decade, probably on the first or last Tuesday in May, 1853, the first Medical Society of Wapello County was organized with the following members enrolled:

- Dr. C. C. Warden, Ottumwa
- Dr. A. D. Wood, Ottumwa
- Dr. J. Williamson, Ottumwa
- Dr. W. L. Orr, Ottumwa
- Dr. J. W. LaForce, Old Ashland
- Dr. A. R. Weir, Agency City

The officers selected were: Dr. C. C. Warden, president; Dr. A. D. Wood, vice president; Dr. J. Williamson, secretary.

The records are somewhat confused at this point, owing to an item contained in volume 2, page 415 of the *Iowa Medical Journal* for the year 1855, which is on file in the Library of the Surgeon General, Washington, D. C. The article referred to follows:

"The Wapello County Medical Society was organized in Ottumwa, May 26th, 1855. Those present:

- | | |
|------------------|---------------|
| H. Kirkpatrick | J. C. Kinsey |
| J. Williamson | W. Gutch |
| F. G. McClintock | J. L. LaForce |
| A. R. Weir | J. J. Ellison |
| T. J. Douglass | A. D. Wood |
| C. C. Warden | J. L. Taylor |
| A. C. Olney | A. Hawkins |

"H. Kirkpatrick was elected president, and J. Williamson, secretary.

"Two weeks later, June 9th, S. G. Norris and S. P. Johnson were made members."

It is probable that the 1855 organization referred to above records (or should have recorded)

the annual election of officers for the year beginning May 26, 1855, with a list of the membership of the Society at that time. However, a search of the files of the Ottumwa *Courier*, which is complete for the month of May, 1853, has nothing to say concerning the organization of a Wapello County Medical Society. The files of the *Courier* for the summer of 1855 are not complete, the issues preserved being as follows: April 19, May 10, June 11 and 28, July 5 and 12. In none of these issues is the Wapello County Medical Society mentioned or referred to.

Dr. Fairchild's *History of Medicine in Iowa* does not mention the 1855 meeting but fixes the date of the organization as of May, 1853. Dr. A. O. Williams of Ottumwa provided Dr. Fairchild with this information. Dr. Williams, whose wife was a daughter of W. H. Warden, founder and publisher of the Ottumwa *Courier* for many years, was one of the outstanding members of the profession in Wapello County for nearly a half century. He had a broad literary education and was the type of man who would carefully scrutinize every bit of evidence available, whether documentary or traditional, before a definite conclusion would be subscribed to.

There is more than a suspicion of faulty typography in the 1855 version, in which appears the names of "J. C. Kinsey" and "J. L. LaForce." Hinsey was the name, not Kinsey; and J. W., not J. L., was the LaForce referred to. Was a careless reportorial effort responsible for the addition of two names to the list that nowhere else appear in the records of the medical history of the County? The names referred to are: F. G. McClintock, and J. J. Ellison.

That Dr. C. C. Warden was the first president

of the Wapello County Medical Society is an undisputed tradition in this community, both lay and professional. It must be assumed, therefore, that the account of the 1855 meeting, which appeared in the *Iowa Medical Journal* of that year, is faulty and incorrect.

After continuous functioning over a period of eight years, the Society was suddenly disrupted by the Civil War. Detailed activities of the organization during those eventful years before the war are legendary, all records having been lost or destroyed.

CIVIC AND STATE MEDICAL BUILDERS

The activities of many pioneer physicians are recorded in the varied fields of civilian enterprise.

and, together with Drs. Thrall, Orr, Williamson and Hinsey as collaborating members, controlled the administration of educational interests for more than a quarter of a century. The first independent school meeting of record was held in the office of Dr. Thrall. The first principal of the Ottumwa public school was Dr. Orr, who served from 1856 to 1858, and then resigned to resume the practice of medicine.

Nor was that all. This little group of pioneer physicians not only controlled the destinies of the medical profession of Wapello County, and educational interests, in the early years, but their dominating influence in public affairs made a lasting impression in city and county politics. Dr. Orr was elected mayor of Ottumwa four times; Dr.



EARLY PIONEER DOCTORS

Upper, left to right: "Old Doc" Buck, W. L. Orr, C. C. Warden, A. D. Wood, S. E. O'Neill.
Lower, left to right: D. C. Dinsmore, A. R. Weir, Wm. Gutch, F. M. McCrear, A. B. Comstock, James Nosler.

Dr. Nosler, Dr. Flint, Dr. Yoemans and Dr. Wood were four of the twenty-odd delegates to the Plankroad Convention held in Mt. Pleasant, February 27, 1850, which would have involved the greatest single highway improvement program in the county except for the hard surfacing program of recent years.

Dr. C. C. Warden retired from practice in 1856, after thirteen years of service. His influence and personal services had much to do with the establishment of a sound and successful public school system in Ottumwa at an early date. He served as president of the School Board for twelve years

Hinsey served as county coroner four years, was a member of the board of supervisors one term, and was chairman of the meeting that organized the Republican party in Wapello County in 1856; and Dr. Thrall was clerk when, in 1868, the city of Ottumwa was reorganized under the general incorporation laws of the state.

Nor yet was that all. Three of them—Dr. Thrall, Dr. Williamson and Dr. Hinsey—were each destined to receive the highest gift of honor the Iowa State Medical Society can bestow, namely, its presidency. Each served with distinction his allotted term.

(To be continued)

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

LIPPINCOTT'S QUICK REFERENCE BOOK FOR MEDICINE AND SURGERY, a Clinical, Diagnostic, and Therapeutic Digest of General Medicine, Surgery, and the Specialties, Compiled Systematically from Modern Literature—By George E. Rehberger, M.D. Twelfth edition. J. B. Lippincott Company, Philadelphia, 1944. Price, \$15.00.

OPERATIONS OF GENERAL SURGERY—By Thomas G. Orr, M.D., Professor of Surgery, University of Kansas School of Medicine, Kansas City, Kansas. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

ARTHRITIS AND ALLIED CONDITIONS—By Bernard I. Comroe, M.D., Associate in Medicine, University of Pennsylvania, Senior Ward Physician and Chief of the Arthritis Clinic, Hospital of the University of Pennsylvania. Third edition, enlarged and thoroughly revised. Lea & Febiger, Philadelphia, 1944. Price, \$12.00.

TABER'S DICTIONARY OF GYNECOLOGY AND OBSTETRICS—By Clarence Wilbur Taber, Medical Editor and author of Taber's Cyclopedic Medical Dictionary, Taber's Condensed Medical Dictionary, and Dictionary of Food and Nutrition; with the collaboration of MARIO A. CASTALLO, M.D., Assistant Professor of Obstetrics, Jefferson Medical College, Gynecologist to St. Mary's and St. Agnes' Hospitals, Obstetrician to St. Mary's Hospital. F. A. Davis Company, Philadelphia, 1944. Price, \$3.50.

THE ART OF RESUSCITATION—By Paluel J. Flagg, M.D., Chairman, Committee on Asphyxia, American Medical Association; President and Founder of the Society for the Prevention of Asphyxial Death, Inc. Reinhold Publishing Corporation, New York, 1944. Price, \$5.00.

THE 1944 YEAR BOOK OF GENERAL MEDICINE—Edited by George F. Dick, M.D., J. Burns Amberson, M.D., George R. Minot, M.D., William B. Castle, M.D., William D. Stroud, M.D., and George B. Eusterman, M.D. The Year Book Publishers, Chicago, 1944. Price, \$3.00.

CONTROL OF PAIN IN CHILDBIRTH—By Clifford B. Lull, M.D., Clinical Professor of Obstetrics, Jefferson Medical College, Assistant Director, Philadelphia Lying-In Unit, Pennsylvania Hospital; and ROBERT A. HINGSON, M.D., Surgeon, U. S. Public Health Service, Director, Postgraduate Medical Course, Philadelphia Lying-In Unit, Pennsylvania Hospital. With an introduction by NORRIS W. VAUX, M.D., Obstetrician-in-Chief, Philadelphia Lying-In Unit, Pennsylvania Hospital. J. B. Lippincott Company, Philadelphia, 1944. Price, \$7.50.

PRINCIPLES AND PRACTICE OF SURGERY—By W. Wayne Babcock, M.D., Emeritus Professor of Surgery, Temple University, Acting Consultant, Philadelphia General Hospital; with the collaboration of thirty-seven members of the faculty of Temple University. Lea & Febiger, Philadelphia, 1944. Price, \$12.00.

MODERN CLINICAL SYPHILOLOGY—By John H. Stokes, M.D., Professor of Dermatology and Syphilology, School of Medicine and Graduate School of Medicine, University of Pennsylvania; HERMAN BEERMAN, M.D., Assistant Professor of Dermatology and Syphilology, School of Medicine and Graduate School of Medicine, University of Pennsylvania; and NORMAN R. INGRAHAM, JR., M.D., Assistant Professor of Dermatology and Syphilology, School of Medicine, University of Pennsylvania. Third edition, reset. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

BOOK REVIEWS

DISEASES OF THE DIGESTIVE SYSTEM

Edited by Sidney A. Portis, M.D., associate professor of medicine, University of Illinois Medical School (Rush); attending physician, Michael Reese Hospital; consulting physician, Cook County Hospital; consultant in medicine to the Institute of Psychoanalysis, Chicago. Second edition. Lea & Febiger, Philadelphia, 1944. Price, \$11.00.

This second edition of Dr. Portis's book has enough outstanding features to make it acceptable to both students and practitioners. It is difficult to see how any more gastro-enterology could be crammed into one volume of 932 pages. Each of the fifty contributors is outstanding in some field of gastro-enterology; their clear-cut, concise contributions make the book authoritative.

The arrangement of the subject matter is excellent. The author recognizes that a knowledge of physiology is essential before one can obtain a proper understanding of pathology and clinical syndromes. He, therefore, properly prefaces the discussion of disease of various organs with a chapter on physiology.

This edition also recognizes the ever increasing importance of psychosomatic aspects of gastro-intestinal symptoms and properly includes well written chapters on this subject. In addition to the usual chapters on the history of and diseases of the digestive system, there are very important chapters which discuss briefly and clearly the gastro-intestinal man-

ifestations of extra-abdominal and systemic disease, such as urologic disease, neurogenic disturbances of the intestinal tract, allergy, and endocrinologic manifestations in the gastro-intestinal tract.

The 182 engravings are amply sufficient to illustrate the clinical discussions, and the roentgenograms are particularly well chosen and distinct. References are sufficient for all practical purposes and the index is complete.

The reviewer knows of no other one volume on gastro-intestinal disease which so thoroughly meets the demands of both practitioner and student.

A. A. S.

A TEXTBOOK OF PATHOLOGY

By Robert Allan Moore, Edward Malinckrodt, Professor of Pathology, Washington University School of Medicine, St. Louis, Missouri. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

In most textbooks of pathology the author is content to describe the commoner lesions and discuss the more usual diseases. This makes them more practical for the medical student but of less use to the pathologist or practicing physician who may be confronted with a rare tumor or a baffling syndrome.

In this volume, Dr. Moore has been more ambitious and has made the attempt to cover the whole field of pathologic changes. And, though this might seem an impossible task, he has in large part succeeded and produced a work of exceptional value. He avoids undue sketchiness by several means. In

most controversial matters he simply states the diverse opinions and lets it go at that. He also uses a terse and compact style, which packs as much information as possible into each sentence. This is a relief from the prolixity of much medical writing but does have the disadvantage that certain points are not adequately emphasized. Certain chapters are shorter than one could wish but it is too much to expect everything in a book of only 1,300 pages. The illustrations are numerous and of uniform excellence, and it goes without saying that the results of recent research are incorporated in the text.

To our mind, Dr. Moore's treatise is a reference work rather than a textbook; but we need the former much more than we do the latter. Since the field of morbid anatomy and morbid physiology is so vast and so complex, we should have a publication in which every, or almost every condition is described—the usual, the unusual, and the rare. May we hope that future editions will be expanded into two or more volumes and form the encyclopedia of pathology which is so much needed?

J. S. W.

NEW AND NONOFFICIAL REMEDIES, 1944

Containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1944. American Medical Association, Chicago, 1944. Price, \$1.50.

The current volume of New and Nonofficial Remedies reflects two important and forward looking decisions of the Council; namely, to use the metric system exclusively in all its publications and to consider for acceptance contraceptive preparations offered for use as prescribed by physicians. These decisions in turn reflect the vigorous and progressive leadership of the Council in the service of medicine.

The chapter on contraceptives is quite comprehensive; with the acceptance of more preparations, it will undoubtedly assume a large place in New and Nonofficial Remedies. The Council has thus far accepted some contraceptive jellies and creams, contraceptive diaphragms, diaphragm inserts, syringe applicators, and fitting rings. It is understood that a number of additional preparations have been submitted for Council consideration since the book went to press. This chapter represents a courageous and long-needed innovation.

Some of the new preparations which appear in this volume are: Succinylsulfathiazole, a new sulfonamide, a proprietary brand being "Sulfasuxidine;" Diodrast Concentrated Solution, a preparation of the already accepted Diodrast, for use in a special diagnostic procedure for visualization of the circulatory system and also cholangiography; a preparation of Sodium Benzoate for use as a liver function test; Mersalyl and Theophylline, accepted under the name Salyrgan-Theophylline Tablets, pro-

posed as an adjunct to intravenous injection of the already accepted drug; Zinc Insulin Crystals and Zinc Insulin Injection Crystalline; Tetanus Toxoid; and Concentrated Oleovitamin A and D, a dosage of the pharmacopoeial preparation.

A glance at the preface shows that certain general articles have been revised to bring them up to date. More or less important revisions have been made of the following chapters: Barbituric Acid Derivatives, Estrogenic Substances; Parathyroid; Ovaries; Sulfonamide Compounds; Vitamins, especially the sections, Vitamin B Complex and Vitamin D. In this connection it is worth noting that each chapter in the book is reviewed annually, or more often if indicated, by the responsible referee for such revision.

This volume is of paramount interest to all those concerned with rational and modern drug therapy.

METASTASES

Medical and Surgical

By Malford W. Thewlis, M.D., Attending Specialist in General Medicine, United States Public Health Hospitals, New York City; Attending Physician, South County Hospital, Wakefield, Rhode Island; Special Consultant, Rhode Island Department of Public Health. Foreword by HUBERT A. ROYSTER, M.D., Honorary Chief Surgical Service, Rex Hospital; Chief of Staff, St. Agnes Hospital; Consulting Surgeon, Dix Hill State Hospital. Charlotte Medical Press, Charlotte, North Carolina, 1944. Price, \$5.00.

This book of 230 pages is a tabulation of the sites from which and to which metastases occur. A brief first section is readable and informative, the rest of the book is a mere outline suitable for quick reference from a reading of which no more can be gained than from a dictionary.

The five chapters are entitled: Neoplasms, Infections, Infectious Diseases, Miscellany (which includes blood dyscrasias and other diseases), and Regional Metastases. Under these headings are listed alphabetically the type or site of primary lesions, the source of metastases and the location. The more common sites of metastasis are italicized but might better be listed in order of frequency since nothing is gained by their alphabetic enumeration. A useful addition might be some indication of the tendencies of individual growths and their relative rate of metastasis.

Attention is directed to the fact that not only malignant growths but abscesses, infections and inflammations are often "transferred from a primary focus to a distant site." Yet, even with this broad definition of metastasis, the author omits direct extension of tumor cells but includes leukemias.

There is an extensive and useful bibliography and an index. The drawings are too small and too crowded, the number of errata corrected indicates rather poor proofreading, and the printing could have been greatly improved.

E. G. Z.

SOCIETY PROCEEDINGS

Adair County

Members of the Adair County Medical Society met at the Greenfield Hotel in Greenfield Monday evening, December 11, for a dinner and business meeting. Following dinner a report was given and discussed regarding the Medical Service Plan recently presented at the Special Meeting of the House of Delegates in Des Moines. Officers elected for the ensuing year include Dr. Ralph E. Wiley of Fontanelle, president; Dr. Arthur S. Bowers of Orient, secretary-treasurer; and Dr. Edna K. Sexsmith Harper of Greenfield, delegate.

A. S. Bowers, M.D., Secretary

Butler County

Members of the Butler County Medical Society entertained their wives at a turkey dinner Tuesday evening, November 14, at the Cashman Cafe in Allison. Entertainment included interesting moving pictures shown by Dr. Edwin M. Mark of Clarksville.

Des Moines County

The Des Moines County Medical Society held its annual meeting Tuesday evening, December 12, at Hotel Burlington in Burlington. Officers elected to serve the Society during 1945 include Dr. Daniel F. Huston, president; Dr. Jonathan H. Murray, vice president; and Dr. Wayne R. Lee, secretary-treasurer. All officers are of Burlington.

Johnson County

The December meeting of the Johnson County Medical Society was held in Iowa City at Hotel Jefferson, Wednesday, December 6, at 6:00 p. m. The annual election of officers was held following dinner. Those named to serve the Society during 1945 include Dr. Mark L. Floyd, president; Dr. Stuart C. Cullen, vice president; Dr. Rubin H. Flocks, secretary-treasurer; Drs. Ewen M. MacEwen, Andrew W. Bennett, and John W. Dulin, delegates; and Drs. Paul A. Reed, Wilbur R. Miller, and Raphael J. Hennes, alternate delegates. All officers are of Iowa City with the exception of Dr. Hennes who is located in Oxford.

The scientific program consisted of an interesting paper by Major Hanson H. Leet, M.C., Chief of the Neuropsychiatric Service in La Garde General Hospital in New Orleans, Louisiana, entitled War Neuroses and Postwar Problems. The paper was discussed by Jacques S. Gottlieb, M.D., of the Psychopathic Hospital and Adolph L. Sahs, M.D., of the Department of Neurology.

Rubin H. Flocks, M.D., Secretary

Mahaska County

A meeting of the Mahaska County Medical Society was held in Oskaloosa at Mahaska Hospital Wednesday evening, December 6. The guest speaker of the evening was William M. Spear, M.D., Superintendent of the State Sanatorium at Oakdale, who spoke on Advancement in Diagnosis and Therapy of Pulmonary Tuberculosis.

Monroe County

The annual meeting of the Monroe County Medical Society was held in Albia at Mother's Kitchen, Thursday noon, December 7. The business meeting consisted of a discussion of the proposed Medical Service Plan for Iowa and the election of officers for 1945.

Thomas A. Moran, M.D., Secretary

Pottawattamie County

The Pottawattamie County Medical Society held a meeting in Council Bluffs at Hotel Chieftain Tuesday, November 21, at 6:30 p. m. Nathaniel G. Alcock, M.D., Professor of Urology at the State University of Iowa College of Medicine, was the guest speaker of the evening and presented a paper on Diseases of the Prostate Gland.

The annual meeting of the Pottawattamie Society was held Thursday evening, December 14. Dr. Frederick E. Marsh was named president; Dr. Purl E. Reed, vice president; and Dr. Gerald V. Caughlan, secretary-treasurer. Dr. Aldis A. Johnson was re-elected to the board of censors. All officers are of Council Bluffs.

Scott County

The December meeting of the Scott County Medical Society was held in Davenport Tuesday, December 5, at 6:00 p. m. at the Lend-A-Hand Club. The guest speaker of the evening was Dabney H. Kerr, M.D., Professor of Radiology at the State University of Iowa College of Medicine, who discussed Roentgenologic Studies of Gastro-Intestinal Diseases.

Leo J. Miltner, M.D., Secretary

Story County

The Story County Medical Society held its annual election of officers Wednesday evening, December 13, with the following results: Dr. Julia Cole of Ames, president; Dr. Frank W. Cowgill of Nevada, vice president; Dr. William B. Armstrong of Ames, secretary-treasurer; Dr. Earl B. Bush of Ames, delegate; and Dr. Bush Houston of Nevada, alternate.

Wapello County

The Wapello County Medical Society will hold its January meetings in Ottumwa on the second and sixteenth of the month. The first meeting, Tuesday, January 2, will be held at St. Joseph Hospital. Scientific motion pictures will comprise the program. A film, entitled Simple Goiter, will be presented and discussed by Glenn C. Blome, M.D., of Ottumwa. Fred L. Nelson, M.D., of Ottumwa will present and discuss a movie on Prostatic Hypertrophy. The meeting Tuesday, January 16, will be held at Hotel Ottumwa, with dinner at 6:30 p. m. The guest speaker of the evening will be C. Anderson Aldrich, M.D., of Rochester, Minnesota.

Woodbury County

The Woodbury County Medical Society held a special dinner meeting at the Mayfair Hotel in Sioux City Thursday evening, December 14, at 6:30 o'clock. The meeting was a testimonial in honor of Dr. Prince E. Sawyer who has been in practice in Sioux City for fifty years. Claude F. Dixon, M.D., of the Mayo Clinic was the guest speaker, and his topic was Remarks on Cancer and Its Curability. The Society had as its guests wives of the members and also members of the Sioux Valley Medical Society, which met in Sioux City earlier that day.

Frank D. McCarthy, M.D., Secretary

PERSONAL MENTION

Dr. Lauren R. Moriarty has resumed his practice in Villisca after nearly four years of service in the Army Medical Corps, more than half of which was spent overseas. Dr. Moriarty, who served as a Captain in the Army, has received a medical discharge.

Lt. Col. Robert E. Mailliard of Storm Lake, who is with a medical unit of the fourth armored division of the Third Army, has been awarded the bronze star medal for meritorious action in France, according to information recently received by his family. Colonel Mailliard went overseas a year ago, serving in England until last July when he was sent to France.

Major Edward M. Honke of Sioux City, who reported for active duty in the Army Medical Corps in 1942, was recently awarded a Doctor of Science degree in urology by the University of Pennsylvania Graduate School of Medicine for work completed while serving as Chief of the Urological Section at Torney General Hospital in Palm Springs, California.

Dr. John P. Cogley of Council Bluffs, who entered the Army Medical Corps in May, 1942, and spent one year as chief of surgery in an evacuation hospital in New Guinea, has been placed on an inactive status because of physical disability incurred in service. Dr. Cogley, who held the rank of Lieutenant Colonel in the Army, plans to return in the near future to the Cogley Clinic for limited surgical and consultant practice.

Dr. Rusl P. Noble has returned to Cherokee after receiving his retirement from the Army Medical Corps. Dr. Noble held the rank of Captain and served for many months in England as a flight surgeon in the Air Corps.

Lt. Col. Leonard J. Hospodarsky, who practiced in Ridgeway before entering the Army Medical Corps, has been stationed in England for several months and has recently been accepted as a Fellow in the Royal Society of Medicine, according to information received by his family.

MARRIAGE

Miss Lois Hein, daughter of Mr. and Mrs. G. W. Hein of Davenport, and Dr. Arthur W. Shafer, son of Dr. and Mrs. Lee E. Shafer of Davenport, were united in marriage at a candlelight ceremony Friday evening, November 24, at 6:30 o'clock in Holy Cross Lutheran Church. Following a short wedding trip the couple will reside in Davenport at 2715 East Eighteenth Street. Dr. Shafer is engaged in the practice of medicine with his father.

DEATH NOTICES

Carpenter, William Sanford, of St. Louis, Missouri, aged seventy-three, died December 2 following an illness of six months. He was graduated in 1894 from the University of Louisville School of Medicine, and at the time of his death was a life member of the Polk County and Iowa State Medical Societies.

Gillespie, Hamilton S., of Sioux City, aged sixty-nine, died November 15 after a brief illness. He was graduated in 1898 from the University of Nebraska College of Medicine, and at the time of his death was a member of the Woodbury County and Iowa State Medical Societies.

Link, Martha A., McCullough, of Dubuque, aged fifty-nine, died December 1 following a long period of illness. She was graduated in 1909 from Milwaukee Medical College, and at the time of her death was a member of the Dubuque County and Iowa State Medical Societies.

Negus, Cora Weber, of Keswick, aged seventy-six, died November 14 following a heart attack. She was graduated in 1906 from the University of Iowa College of Medicine, and at the time of her death was a member of the Keokuk County and Iowa State Medical Societies.

Smittle, Jacob Michael, of Waucoma, aged sixty-nine, died November 19 after an illness of several years. He was graduated in 1897 from the State University of Iowa College of Medicine and had been a member of the Fayette County and Iowa State Medical Societies.

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AIDS IN THE DIAGNOSIS OF PERIPHERAL NERVE INJURIES*

CAPTAIN I. JOSHUA SPEIGEL, M.C., A.U.S.†

Stripped to fundamentals, the criteria for the evaluation of peripheral nerve injuries are relatively few and simple; so much so that in most cases the decision as to which nerve is at fault can be made in less than sixty seconds merely by applying a few basic principles which are exceedingly easy to remember.

It is well known that complete interruption of any peripheral nerve results in:

1. Loss of motor power of the muscles supplied by the nerve.
2. Complete loss of sensation in the sensory distribution of the nerve.
3. Atrophy of the muscles supplied by the involved nerve.
4. Trophic changes in the skin and its appendages due to interruption of the sympathetic supply traveling along the preripheral nerve.
5. Generally, the formation of a tender neuromatous bulb on the proximal end of the cut nerve.
6. Loss of the deep tendon reflexes in the tendons innervated.

Partial interruption by injury of a peripheral nerve yields similar results to a greater or lesser degree. Also, it occasionally causes the production of severe pain of a burning nature, called causalgia.

In a fresh peripheral nerve injury there is, of course, no neuromatous bulb, no atrophy, and generally there has been insufficient time for trophic changes to develop. After a few weeks, however, these three phenomena are almost invariably present. Frequently one can make the diagnosis (especially in the upper limb) by observing the involved extremity and noting the atrophied muscle group and the portion of skin which shows trophic changes.

In general, then, the diagnosis can be made by observing the salient muscle weakness or paralysis, the area of anesthesia or hypalgesia, the muscle atrophy, and the areas of trophic change. As a valuable adjunct, the patient himself may be asked where his "hot spot" is and he will point to the skin or scar overlying the neuroma. When this scar is tapped gently, the patient experiences tingling sensations radiating to the areas receiving their sensory supply from it and thus, immediately, the involved nerve may be identified. The name Tinel's sign is frequently given to this phenomenon, and it has mistakenly been said to indicate the presence of an intact or partially intact nerve. Actually it indicates merely that the proximal neuromatous bulb has been stimulated and is therefore yielding the only sensory response of which it is capable, namely, sensation in the area it originally subserved. (Tinel's sign, however, has real significance after a nerve has been sutured. Obviously the distal end of a severed nerve is not capable of sending impulses centrally. On the other hand, the proximal end when tapped will yield sensory impulses. If the Tinel's sign becomes obtainable further and further distally from the point of suture, it is irrefutable evidence that functioning nerve fibers are proceeding distally in the degenerated distal segment of nerve.)

The anesthetic and hypalgesic areas will be described pedantically below. These areas are not always clearly delineated and, as is well known, the sensory areas shade into each other. It is presented thus in the interests of simplicity of detail and rapidity of diagnosis, because the mental picture of a characteristic sensory pattern is exceedingly valuable.

THE ULNAR NERVE

I. Injury anywhere from the axilla to the upper third of the forearm, causes:

(a) Paralysis of adduction and ulnar flexion of the wrist.

(b) Paralysis of flexion of the distal phalanges of the ring and little fingers.

*Presented before the Iowa State Medical Society, Wartime Meeting, Schick General Hospital, Clinton, August 11, 1944.

†From the Neurosurgical Section of the Mayo General Hospital, Galesburg, Illinois.

(c) Paralysis of abduction and adduction of all the fingers.

(d) Paralysis of adduction of the thumb.

(e) Weakness of flexion of the thumb.

(f) Anesthesia or hypalgesia on the dorsal aspect of the medial one-third of the hand, the little finger, and the medial side of the ring finger.

(g) Anesthesia or hypalgesia on the volar aspect of the palm of the hand.

(h) Anesthesia or hypalgesia on the volar aspect of the little finger and the medial side of the ring finger.

(i) Marked atrophy of the hypothenar eminence and of the interosseous spaces, especially the first interosseous space (between the thumb and index finger).

(j) Atrophy of the ulnar side of the upper third of the forearm.

(k) Moderate atrophy of the thenar eminence.

II. Injury to the ulnar nerve in the middle third of the arm causes all the symptoms described in I with the exception of (a), (j), and frequently of (b) and (g).

III. Injury to the ulnar nerve in the lower third of the forearm causes all the symptoms described in I with the exception of (a), (b), (g), (j), and frequently (f).

IV. Injury to the ulnar nerve at the wrist causes all the symptoms described in I with the exception of (a), (b), (f), (g), and (j).

V. Injury to the terminal deep branch of the ulnar nerve in the palm causes all the symptoms described in I with the exception of (a), (b), (f), (g), (h), and (j).

MEDIAN NERVE

I. Injury to the median nerve anywhere from the brachial plexus in the axilla to the upper third of the forearm causes:

(a) Paralysis of radial flexion, and weakness of abduction of the wrist.

(b) Paralysis of flexion of all the phalanges of the thumb and index finger.

(c) Paralysis of pronation of the hand.

(d) Marked weakness of flexion of the middle finger.

(e) Mild weakness of flexion of the ring and little finger.

(f) Anesthesia or hypalgesia on the volar aspect of the thenar eminence and of the lateral two-thirds of the palm of the hand.

(g) Anesthesia or hypalgesia on the volar aspects of the thumb, index, middle, and radial half of the ring finger.

(h) Anesthesia on the dorsal aspect of the last phalanx of the thumb, index, middle, and radial half of the ring finger.

(i) Paralysis of opponens action of the thumb.

(j) Marked atrophy of the anterior surface of the upper forearm, especially on the radial side in the region of the bellies of the flexor tendons.

(k) Marked atrophy of the thenar eminence.

II. Injury to the median nerve in the middle third of the forearm causes all the symptoms mentioned in I with the exception of (a), (c), (j), and partially of (b).

III. Injury to the median nerve in the lower third of the forearm causes all the symptoms mentioned in I with the exception of (a), (c), (e), (j), and less of (b).

IV. Injury to the median nerve at the wrist causes all the symptoms mentioned in I with the exception of (a), (b), (c), (e), and (j).

THE RADIAL NERVE

I. Injury to the radial nerve anywhere from the axilla to the upper third of the arm causes:

(a) Paralysis of extension of the elbow.

(b) Slight weakness of flexion of the elbow (brachialis, brachioradialis).

(c) Atrophy of the posterior aspect of the arm (triceps).

(d) Anesthesia or hypalgesia over the dorsum of the arm and forearm.

(e) Paralysis of supination of the forearm.

(f) Paralysis of extension and abduction of the wrist.

(g) Paralysis of extension of all the fingers and the thumb.

(h) Paralysis of abduction of the thumb.

(i) Marked atrophy of the dorsal aspect of the upper third of the forearm.

(j) Anesthesia or hypalgesia over the lateral two-thirds of the dorsum of the hand, and the dorsum of the first two phalanges of the thumb, index, middle, and radial half of the ring finger.

II. Injury to the radial nerve in the middle of the arm causes all the symptoms mentioned in I with the exception of (a), (c), (d), and less of (b).

III. Injury to the radial nerve in the lower third of the area causes all the symptoms mentioned in I with the exception of (a), (b), (c), and (d).

IV. Injury to the radial nerve at the elbow presents a picture similar to III. At the front of the lateral epicondyle the radial nerve divides into its deep and superficial branches.

V. Injury to the deep branch of the radial nerve in the upper third of the forearm causes all the symptoms mentioned in I with the exception of (a), (b), (c), (d), and (j).

VI. Injury to the deep branch of the radial nerve in the middle third of the forearm causes very few symptoms since at this level as the dorsal interosseous nerve it has become the size of a fine thread. The accompanying damage to tendons frequently causes a confusing wrist drop.

VII. Injury to the superficial radial nerve anywhere in the forearm causes only anesthesia or hypalgesia as described in I (j).

THE AXILLARY NERVE

I. Injury to the axillary nerve causes:

- (a) Paralysis of abduction of the arm.
- (b) Anesthesia or hypalgesia over the lateral surface of the upper third of the arm.
- (c) Atrophy of the fleshy deltoid portion of the shoulder.

THE MUSCULOCUTANEOUS NERVE

I. Injury to the musculocutaneous nerve causes:

- (a) Almost complete paralysis of flexion of the elbow.
- (b) Anesthesia or hypalgesia over the lateral aspect of the forearm.
- (c) Atrophy of the front of the arm.

In the upper extremity a few points should be borne in mind which make recognition of nerve injuries easy. It is easy to remember that the ulnar nerve innervates the little and medial half of the ring finger on the volar and dorsal surface. It is then equally easy to remember that the median nerve innervates the remainder of the hand on the volar surface, and the radial nerve innervates the remainder of the hand on the dorsal surface. Similarly, if one can remember that the radial nerve is dorsal, it follows that it supplies all the dorsal musculature, for example, extension; whereas the median and ulnar nerves, being on the volar surface, supply flexion of the hand, each in general being limited to its own side except that the ulnar nerve is in the main responsible for the small muscles of the hand.

With the entire arm, forearm, and hand in a cast, and with the thumb alone free, it is possible to make the proper diagnosis of nerve injury if such exists.

(a) If sensation is lost over the dorsum of the thumb and it cannot be extended or abducted, the radial nerve is involved.

(b) If sensation is lost over the volar surface of the thumb and it cannot be flexed or opposed, the median nerve is involved.

(c) If there is no loss of sensation and the thumb cannot be adducted, the ulnar nerve is involved.

THE SCIATIC NERVE

I. Total paralysis of the sciatic nerve is not frequently encountered. The injury generally involves only a portion of the nerve with resultant partial paralysis. Total paralysis can only occur with profound injuries in the upper third of the thigh or in the buttock and result in:

- (a) Paralysis of flexion of the knee (except for a slight action by the gracilis and sartorius muscles).
- (b) Paralysis of dorsi flexion of the ankle and toes.
- (c) Paralysis of plantar flexion of the ankle and toes.
- (d) Paralysis of inversion of the foot.
- (e) Paralysis of eversion of the foot.
- (f) Anesthesia over the outer surface of the leg, on the instep and sole of the foot, and over the dorsum of the toes, only the inner side of the leg and ankle escaping.

(g) Atrophy of the posterior thigh and all the muscles of the leg and foot.

II. Injury to the sciatic nerve in the middle third of the thigh, if complete, causes all the findings listed in I with the exception of (a).

III. Injury to the sciatic nerve in the lower third of the thigh, if it involves both divisions, produces a picture similar to II.

COMMON PERONEAL NERVE

I. The lateral division of the sciatic nerve if injured anywhere from the popliteal space to the head of the fibula causes:

- (a) Paralysis of dorsi flexion of the ankles and toes with foot drop.
- (b) Paralysis of eversion of the foot.
- (c) Anesthesia or hypalgesia of the lateral aspect of the leg and the dorsum of the foot and toes.
- (d) Atrophy of the anterior tibial and peroneal musculature.

In the upper third of the leg the common peroneal nerve divides into the deep and superficial peroneal nerves.

THE SUPERFICIAL PERONEAL NERVE

I. Injury to this nerve in the upper third of the thigh causes a picture similar to paralysis of the common peroneal nerve with the exception of:

(a) There is paralysis of eversion of the foot, but dorsi flexion of the foot is still present.

(b) The anesthesia or hypalgesia is limited to the lower third of the lateral aspect of the leg, and to the dorsum of the foot sparing the adjoining sides of the great and adjacent toes.

(c) Only the peroneal musculature is atrophied.

THE DEEP PERONEAL NERVE

I. Injury to the deep peroneal nerve in the upper third of thigh causes a picture similar to paralysis of the common peroneal nerve with the exception that:

(a) There is paralysis of dorsi flexion of the foot, but eversion of the foot is still present.

(b) Anesthesia or hypalgesia is limited to the adjoining sides of the great and adjacent toes.

(c) Only the anterior tibial musculature is atrophied.

II. Injury to either of these nerves in the middle third of the leg generally causes only a 20 to 30 per cent impairment in muscular function but the loss of sensation is as described for the upper third. Injury to either of these nerves in the lower third of the leg causes little if any paralysis, but the loss of sensation is as described for the upper third.

TIBIAL NERVE

I. The medial division of the sciatic nerve when injured in the upper third of the leg causes:

(a) Loss of plantar flexion of the foot and toes.

(b) Loss of inversion of the foot.

(c) Atrophy of the calf musculature.

(d) Atrophy of the small muscles of the foot.

(e) Anesthesia or hypalgesia over the sole (lateral five-sixths), lower third of leg posteriorly, and plantar surfaces of toes.

II. When injury is in the middle third of the leg, the findings are as in I except that there is only about 40 to 50 per cent loss of plantar flexion and inversion.

III. When injury is in the lower third of the leg, the findings are as in I with only slight paralysis of plantar flexion of the toes, no loss of inversion, and no atrophy of the calf.

IV. Injury to the medial plantar division of the tibial nerve causes:

(a) Weakness of plantar flexion of the toes.

(b) Anesthesia or hypalgesia over the plantar surface of the medial and anterior two-thirds of the sole of the foot.

V. Injury to the lateral plantar nerve causes:

(a) Very little loss of flexion of the toes.

(b) Anesthesia or hypalgesia over the lateral and anterior third of the sole of the foot.

THE FEMORAL NERVE

I. Injury to the femoral nerve in the upper third of the thigh causes:

(a) Paralysis of extension of the knee.

(b) Anesthesia or hypalgesia over the anterior and lateral aspects of the thighs.

(c) Atrophy of the anterior thigh musculature.

A few hints are of aid in diagnosing lower limb nerve injuries. It is easy to remember that the common peroneal nerve supplies the lateral side of the leg and the dorsum of the foot and toes with sensation, dorsi flexion, and eversion. By remembering that the deep peroneal nerve supplies only the great and adjoining toes (and is therefore medial), one can remember that it supplies the anteromedial (dorsi flexor) muscles, whereas the superficial peroneal nerve innervates the remainder or lateral side of the foot and therefore the anterolateral (everting) musculature. The tibial nerve is the nerve serving the back of the leg and sole of the foot. It supplies sensation to these areas and is responsible for plantar flexion and inversion.

Certain confusing elements in the diagnosis of peripheral nerve injuries must be mentioned. Ankylosis from long disuse, fibrous shortening of atrophic muscles, and cicatricial deformities frequently cloud the picture and they can be recognized only if one is alert to their symptoms. "Trick movements" must be guarded against. Patients can mask an opponens paralysis by clever adduction of the thumb and vice versa. By fixing the extensors of the fingers and extending the wrist, pseudo flexion of the fingers may be attained. If a nerve is regaining function, however, the fact must be carefully explained to the patient and attempts made to eliminate it. Otherwise the return of function to the involved musculature is jeopardized. Finally, one should also heed any symptoms of causalgia. Severe burning pain relieved by moist cool applications, paresthesias, and trophic changes herald the presence of this bitter complication of nerve injury. It is frequently in the area of distribution (roughly) of the involved nerve. Nothing retards the recovery of nerve function as much as the determined effort of the patient to protect the extremity from any movement which causes pain. It becomes evident, therefore, that if causalgia exists vigorous efforts should be made to treat it specifically before attempting to treat the known nerve deficit.

CANCER CONTROL, A DOCTOR'S PROGRAM

EDMUND G. ZIMMERER, M.D., Des Moines*

The increasing mass of cancer propaganda that reaches his desk, some of it promulgated by non-medical groups, makes the doctor increasingly conscious of the popular interest in cancer and its control. He notes the concern of governmental agencies and even professional societies in the establishment of tumor clinics and is aware of the endorsement given such activities by organized medicine. Perhaps he is invited to participate in the work of tumor clinics, at least to the extent of referring his patients. He patiently endures the lay campaigns in which his name appears as sponsor. He may even be asked to speak at cancer meetings, often under lay auspices, and he may occasionally be embarrassed at sharing the platform with a glib lay speaker whose eloquence seems to put his own knowledge of the subject to shame. No wonder he sometimes asks himself where this will lead.

The need for state control of communicable disease has long been conceded. The official supervision of motherhood and of infancy, as in the EMIC program of the Children's Bureau, and even of the child of school age is accepted with more or less reluctance. The treatment of the venereal diseases under public auspices is acknowledged as the best means of controlling their infectiousness and preventing their spread. But the entry of public health into a field which deals with a condition not proven infectious and definitely shown to be noncommunicable, in which the incidence has been little influenced by treatment, seems to portend a ruthless invasion by the state into the whole realm of medical practice from pediatrics to geriatrics.

The program of cancer control was not originated by public health authorities, governmental agencies, or any professional group, but has evolved from a popular demand. It did not arise because of any revolutionary discoveries in either the prophylaxis or treatment of cancer, or even of any definite knowledge as to its underlying causes. It is the outgrowth of fear caused by the increasing incidence of cancer. When any condition rises in a quarter of a century from fifth to second place among the leading causes of death, it obviously becomes a matter of public concern.

Congress, in the first bill in history to be sponsored by the entire body of the United States Senate, took official cognizance of the popular sentiment in 1937 when it appropriated funds for the

National Cancer Institute. The American Society for the Control of Cancer, now known as the American Cancer Society, Inc., was organized in 1901. At first it was a purely professional society whose membership included many leading physicians and pathologists. Later it enlisted interested laymen and more recently has extended its activities by establishing a Field Army which has undertaken a widespread program of lay education, always in cooperation with medical societies.

The first public health recognition of the cancer problem was in 1925 when a lay group headed by a prominent Catholic clergyman succeeded in securing an appropriation from the General Court of Massachusetts for the care of cancer patients. Thanks to the farsightedness of Dr. George Bigelow, part of these funds was used for the study of the preventive aspects of malignancy. Thus, Massachusetts became the first state to establish a program of cancer control. To date nine states have full time personnel engaged in this work, and all health departments are giving cancer control more or less attention.

Hence, we behold an almost ideal setup for the solution of any public health problem. We have a widespread public interest, with press, pulpit, school, and every avenue of education willing and ready to do its part, a government anxious to give such aid as it can, state health departments everywhere giving it more and more attention, countless researchers aided by public and private funds carrying on intensive study in cancer genesis. All these, money, legislation, and organization, are helpless to accomplish anything without the willing cooperation and leadership of the doctors in the hospital, in the city, in the rural home, everywhere.

Obviously a completely satisfactory control program must await at least the discovery of the cause of cancer or a more thorough understanding of its nature, if not a specific remedy or some practical prophylaxis. Physicians would be the first to recognize that we cannot wait till we know all about a disease to do something about it, that we must use available means and knowledge to the best of our ability.

Early and accurate diagnosis and prompt and adequate treatment are the keynote of our present program of control. Early diagnosis implies that the patient comes early to the physician and that the physician be qualified to act without delay. To that end it must be universally recognized by the public that cancer begins as a local disease and that while it is in that stage it is generally curable. We must strive to make all people alert to the early signs of malignancy and prompt in

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seeking competent medical aid. Here lay education is our most important available means. Such education must be neither technical nor detailed. It must be simple, easily understood, and above all, motivating. The facts about cancer must be disseminated in the school and home, in the family, and in social circles to be effective. Lay organization is of the greatest assistance in giving us an entree to the very people most in need of education.

True, there are disadvantages to campaigns by unofficial and particularly lay organizations aside from their frequent lack of dignity, but their practical value has been amply demonstrated in the fight against tuberculosis, venereal disease, and infantile paralysis. Whether we like it or not, lay education in health matters seems best accomplished by campaigns, with ballyhoo, posters, buttons, exhibits, and distribution of literature. Such programs can be better carried out under lay than professional auspices, but must be restrained and directed by ethical and experienced leadership.

The widespread interest and the alarm created by misrepresentation and ignorance of the truth about cancer offer a fertile field to the charlatan and the quack which can be combatted only by a unified and authoritative program of education. Education implies a general dissemination of knowledge based on accurate conclusions drawn from known facts. In cancer, as in other diseases, this involves statistical evaluation of a significant universe such as is more readily accessible to a public health department than any other agency.

Constant research and new discoveries contribute ever changing views as to the nature of malignancy, which must be quickly and carefully sifted to prevent the too ready acceptance of promised cures and yet make prompt use of these means which have merit for the suffering public. Only a centralized authoritative body close to organized medicine, the research laboratory, the hospital, and the clinician, and one which enjoys the confidence of the physicians and the public alike, can coordinate the conflicting trends of thought to avoid inconsistency. Only such a body can control and direct lay activity in health matters and coordinate them to professional guidance.

The function of the health department, then, continues to be that of correlator and liaison between the public and the physician. Its objectives cannot be attained without the confidence and cooperation of all agencies concerned, and least of all without the good will and active support of the doctor. Indeed, "the doctor is an integral part of the plan of public health admin-

istration just as the lawyer is part of his court".¹

We cannot shut our ears to the cry of the public that something be done about cancer. The people have spoken and in a democracy "the people should have what they want, but they must be protected from exploitation. They should have a voice with their physicians in the administration of their health programs."¹ They need and desire medical leadership, and nothing is gained but much is lost by our refusal to give it.

In the program of cancer control the doctor is the key man. On his degree of suspicion, upon his ability to recognize precancerous or early lesions, upon his recommendations depend not only the success of the program but, more important, the life or death of the individual. The first doctor seen by the cancer patient has more to do with the ultimate outcome of the case than the surgeon, radiologist, specialist, or clinic. Such responsibility imposes the obligation of being informed and competent or at least willing to seek competent consultation.

Unfortunately, too many doctors still have an ingrained pessimism regarding cancer that is not justified by the facts, and which reacts to the detriment of their patients. Almost 40,000 five year cures of definitely authentic cases of malignancy in the archives of the American College of Surgeons attest the curability of some cancers. Optimism is an important corollary to cancer control.

Delay in the treatment of cancer is dangerous. If the delay is due to the patient's ignorance or fear, it is bad enough; but if it is due to the doctor's carelessness or incompetence, it is practically criminal. The doctor's attitude plays an important rôle. If he makes light of a lesion, the patient will not regard it seriously either, and if he is instructed to return for further examination at some indefinite time he will be apt to postpone or neglect action until it is too late.

On a statistical basis it may be presumed that one in every 133 patients seen by a physician in Iowa is a cancer patient.² That more cases are not diagnosed may be due to the low degree of suspicion on the part of the physician or to his indifference to preventive medicine. If he is consulted for a cut finger or a sprained ankle, he does not bother to question his patient about the apparent leukoplakia on his lip. In this age of specialization, we are drifting from the beneficial habits of the old family doctor. Preventive medicine not only redounds to the patient's advantage but is remunerative as well.

1. E. W. Rowe, *Better Health*, Nebraska State Department of Health.

2. Luis I. Dublin, *Metropolitan Life Insurance Company*, Letter of November 7, 1943.

Temporization with lesions of skin cancer is a common cause of delay that can be attributed to doctors.³ Irregular uterine bleeding is too often charged to the menopause and the doctor is too reticent to make a speculum examination. Even more common is our ready acceptance of the patient's own diagnosis of piles and neglect to make a simple examination. In fact, most of our mistakes are due not so much to our inability to recognize signs as to our failure to look for and find them.

The educational program of the Field Army stresses the importance of periodic physical examinations, but unless such examinations are thorough they not only fail to discover early cancer and save life but serve to discourage the patient and discredit the whole program. A mere history, taking of blood pressure, a casual auscultation of the chest, and a urinalysis will not always reveal cancer or permit us to give the examinee a clean bill of health.

The following points in the examination of an individual for cancer are suggested as being essential:

Examination of the lips, tongue, cheeks, tonsils, and pharynx for persistent ulceration, especially in the presence of a history of hoarseness or persistent coughing. In the latter case, a roentgenogram of the chest may be needed.

Examination of the skin, of the face, body, and extremities for scaliness, bleeding warts, black moles, and unhealed scars.

Examination of every woman's breasts for lumps or bleeding nipples.

Examination of subcutaneous tissue for lumps on the arms, legs, or body.

Investigation of any symptoms of persistent indigestion or difficulty in swallowing and palpation of the abdomen.

Examination of lymphatic system for enlarged glands, especially in the neck, axilla, or groin.

Examination of the uterus for enlargement, laceration, bleeding or new growths; bimanual examination to determine condition of ovaries and tubes.

Examination of rectum, always important even in the absence of symptoms.

Examination of urine for blood.

Examination of bones and a roentgenogram of any bone that is the seat of pain.

Examination of blood.

Careful examination and a roentgenogram if indicated when the history or physical findings point to abnormality in any other organ or tissue.

Biopsy, while ordinarily not a difficult procedure, is one of utmost value in confirming the diagnosis but should not be rashly done. In general, it should be made on the advice of and in consultation with the pathologist.

The diagnosis and treatment of cancer are always of grave importance — too grave most times to depend on the judgment of a single individual no matter how competent he may be. No matter what the physician's professional qual-

ifications, he cannot hope to recognize cancer in its every possible manifestation; and if he could, he would not be able to recommend appropriate treatment in every case. Thus, "Cancer has ceased," as Ewing says, "to be a one man job." Tumor clinics divide responsibility, make for earlier, more accurate, and definite decisions in diagnosis and treatment, and encourage better training in both the recognition and therapy of cancer. Tumor clinics may be established by county medical societies in cooperation with the State Department of Health. A subsequent article will deal with their organization, benefits and use. Thus far, four are active in Iowa.

Reference to a tumor clinic does not exclude the patient's own physician. On the contrary, it enhances his position. No patients are accepted unless referred by a physician. The personnel of the clinic is selected by the local medical society. The referring physician is invited to participate in the examination and discussion of the case. All reports and treatment recommendations are made to him and he alone determines whether they shall be carried out, and where and by whom.

The minimum obligation of the individual physician to the program of cancer control is that imposed by his professional responsibility and common humanity, to make himself competent. He must be suspicious of malignancy in every obscure case. He should be alert to the earliest, even precancerous manifestations of the disease. He should have available laboratory, x-ray, and other diagnostic facilities and be ready to seek competent consultation. And withal he should develop a reasonable optimism regarding the outcome of cancer therapy.

As a group, the profession can contribute to the training of its members. Cancer therapy, despite the fact that we still do not know all about the disease, is not static. Amazing advances have been made in recent years, especially in cancer of the breast, uterus, mouth, and buccal cavity. The medical society should have an active cancer committee whose function it is to bring modern thought on the subject before the society by means of frequent papers, symposia, and the like. It might well consider the establishment and maintenance of a tumor clinic. One of the principal benefits of the clinic is its professional training. Doctors should be encouraged to attend its clinical sessions, and frequent clinicopathologic conferences should be held.

The committee could develop higher standards of service in the community by urging more thorough examinations of potential malignancies, emphasizing the important steps in a complete phys-

3. Connecticut State Department of Health.

ical examination, pointing out the value and dangers of biopsy, securing better records so that treatment methods can be better evaluated. A precise history and definite diagnosis are indicative of the quality of professional care the cancer patient is receiving. The same committee might well check on unorthodox treatment or unauthorized practice in the community.

If the doctors or the medical society desire to extend their activities beyond the range of purely professional interest, they might properly consider the arranging of lay meetings for the extension of health education to the public and cooperation with interested agencies. Professional activity is lagging far behind public interest in cancer. Apathy, jealousy, or personal prejudice must not blind us to the prevailing trends in preventive medicine. The doctor's place in this as in every program to fight disease and promote health is in the forefront. His leadership is desired and welcomed. The public and the state recognize their dependence on the doctor; without him there can be no effective progress in any public health activity.

The program of cancer control, borne of need and of fear, is no exception. The program is not state medicine. It is not a lay project. It is and must be and always shall be a doctor's program.

PSITTACOSIS IN IOWA

REPORT OF A CASE

FIRST LIEUTENANT J. HOWARD LAUBSCHER,
M.C., A.U.S.,

ALBERT J. WENTZIEN, M.D., Tama, and
CARL F. JORDAN, M.D., Des Moines

In reporting this, the first case of psittacosis to be notified to the Iowa State Department of Health, the authors wish to direct attention to psittacosis as an etiologic factor to be considered in cases of atypical pneumonia.

In a comprehensive article, Meyer¹ describes the pandemic of psittacosis in 1929-1930 involving nearly 800 cases of human illness in the United States, England, and various countries in Europe, Scandinavia, and North Africa. The focus of infection was Argentina, the virus having been conveyed there with shipment of 5,000 Psittacine birds from Brazil.

The authors wish to thank K. F. Meyer, M.D., Director, Medical Center, George Williams Hooper Foundation, San Francisco, California, for cooperation in performing complement fixation tests and in demonstrating the virus of psittacosis; also B. J. Olson, M.D., Surgeon, United States Public Health Service, for assistance with field investigation.

Meyer states that the term psittacosis "is primarily used to designate a peculiar contagious disease of man, which may follow either fleeting or prolonged exposure in a room, house, pet store or aviary where visibly diseased or apparently healthy parrots, parrakeets, canaries and pigeons are held in captivity. Since late in 1929 and in no way connected with the pandemic era (of 1929-1930), a total of 273 cases of psittacosis with 47 or 17 per cent deaths have been clinically recognized in the United States and Canada."

Armstrong, McCoy, and Branham² emulsified the liver, heart, and other tissues of infected parrots and parrakeets and filtered the emulsion through a Berkefeld N filter; the sterile filtrate contained a filter-passing agent which caused disease and death when inoculated into other birds. Levinthal^{3,4} described minute, coccoid bodies in the form of diplococci or clusters, which he demonstrated in endothelial cells and in stained films of pericardial fluid; he regarded the coccoid bodies as the causative agent of psittacosis. These bodies, probably more nearly related to bacteria than to true viruses, are known as Levinthal-Cole-Lillie bodies (LCL bodies), or Microbacterium multiforme psittacosis (MMP bodies).

CASE REPORT

History: A boy (J. H.), fifteen years of age, resident of Tama County, Iowa, was admitted to the University Hospital in Iowa City on June 22, 1944, with the complaint of a cough of nearly two weeks' duration. On June 17 gastro-intestinal signs appeared, marked by nausea and diarrhea. The day before admission he had a temperature of 104 degrees. It was the latter complaint that precipitated hospitalization, for he had continued to work while being troubled with the cough.

This boy had been seen at intervals at the University Hospital since 1942 for diabetes mellitus. This condition had been well controlled as evidenced by records he kept and by his growth. With the onset of the present illness the insulin requirement began rising, although he remained as active as before; after recovery, it receded just as rapidly as it had risen.

The patient had been working at a place where a parrot was kept and among his duties was the frequent task of cleaning the parrot's cage. On May 29 the parrot bit him on the hand. The injury was severe enough that it broke the skin and the boy sought medical attention. On June 10, 1944, approximately twelve days after exposure to the parrot, he began to cough. This cough was nonproductive and not severe. The patient continued his usual activities until June 17 when he had abdom-

inal pain and three to four watery stools each day for two days. These symptoms caused him to go to bed. He felt tired and his appetite decreased markedly. General malaise and headache were present for four days preceding admission. His temperature had been normal for these four days until the night before admission, when it rose to 104 degrees.

The attending physician (A.J.W.) reported that at the time of admission the patient's pulse rate was only 80 per minute, a bradycardia contrasted with the high fever, and he seemed to have no respiratory distress. The possibility of psittacosis was recognized and the boy was sent to the hospital.

Physical Examination: On admission, June 21, 1944, the temperature rectally was 100 degrees. The patient weighed 113½ pounds and his height was 65 inches. The height and weight were sufficient to prove that physical development had not been retarded by diabetes. The boy did not appear acutely or chronically ill, but a persistent, hacking, nonproductive cough was noted. Physical examination revealed a tender, swollen node in the right anterior cervical chain. The mucous membranes of the throat were mildly injected. There was a scar between the thumb and the first finger of the right hand where the parrot had bitten him. No evidence was present of infection at the site of the bite. There were no abnormal conditions observed in the remainder of the examination.

Laboratory Findings: The white blood count was 5,900 cells and the hemoglobin 12 grams. The differential count made evident a slight predominance of lymphocytes. Fifty-two lymphocytes were present of 100 cells counted. The remainder of the cells were 8 band polymorphonuclears, 34 segmented polymorphonuclears, 2 eosinophils, and 4 monocytes. The Wassermann reaction was negative and serologic studies for typhoid and undulant fever were also reported negative. Urine contained four plus reducing substance but there were no acetone bodies or other abnormalities. The admission roentgenogram of the chest showed evidence of a small patch of pneumonitis in the lower lobe of the left lung. A repeat roentgenogram on July 5, 1944, gave evidence of a healthy chest. Blood was drawn and the serum sent to Dr. K. F. Meyer at the Hooper Foundation. The complement fixation test was reported positive in a titer of 1:256. The positive laboratory report, together with the clinical findings and history of parrot exposure, confirmed the diagnosis of psittacosis.

During the hospital stay the patient had no ele-

vation of temperature; his cough subsided about ten days after admission.

FURTHER DATA AND COMMENT

A number of adults and two small children occupy the residence in which the suspected parrot was kept. There were in addition several extra-household contacts, including the patient (J. H.) who was employed there much of the time preceding his acute illness. Although other persons in the immediate environment may have been exposed, there was no definite history of pulmonary infection like that of the case reported. Serum specimens from four adult household contacts were sent to Dr. Meyer with request for complement fixation tests. Results of these tests are as follows:

Complement Fixation Tests With Psittacosis Antigens on Serum of Household Contacts						
Contacts	Complement Fixation Test Dilution					
	1:2	1:4	1:8	1:16	1:32	1:64
E.M.	4+	2+				
C.M.		4+	3+			
C.L.	4+	2+	1+			
B.M.	4+					

Complement fixation reactions in low dilutions are of little value; they may or may not be specific or a manifestation of subclinical infection.

On the night of July 14, 1944, the parrot incriminated in this case of psittacosis was shipped with dry ice, air express, to the Hooper Foundation. Although the bird had been destroyed and buried about twenty-four hours before it could be secured for shipment, the specimen arrived in satisfactory condition.

Autopsy, as reported by Dr. Meyer on August 12, "revealed a spleen 14x18 mm. which might be considered suspicious for latent psittacosis. The wash water of the heart blood failed to give a positive complement fixation reaction. To date the mice inoculated with the triturated spleen, liver and kidneys have shown no illness. However, several blind passages will be made before a final verdict will be rendered." On September 3, a report from the California laboratory stated that the organs of this parrot were found through animal passage to be positive for psittacosis.

The length of time the parrot might have been infected before causing human illness is uncertain. The bird had been in the same home in Tama County for sixteen years, having been brought back from Florida. Could the parrot have been a virus carrier all these years? It appears likely that the bird might have acquired infection more recently through exposure to parrakeets. One of a pair of love birds died in this house about a year ago. Another love bird, cage-mate of the surviving parrakeet, was forwarded to the laboratory to

be tested for evidence of virus. This bird was apparently free from infection, as evidenced by mice which were anatomically negative twenty-four days after inoculation with the parakeet's tissues.

SUMMARY

1. Report is made of the first case of psittacosis to be diagnosed and notified in Iowa.

2. Diagnosis was based on: (a) history of exposure to a parrot; (b) clinical and roentgenologic findings of atypical pneumonia; (c) positive complement fixation test for psittacosis on patient's serum; and (d) isolation of the virus of psittacosis from organs of the parrot.

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3. Levinthal, Walter: Die Ätiologie der Psittakosis. *Klin. Wchnschr.*, ix:654 (April 5) 1930; also *Med. Welt* iv:588 (April 26) 1930.
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CANCELLATION OF MIDWEST CONFERENCE ON REHABILITATION

At the request of the War Committee on Conventions, Washington, D. C., the Institute of Medicine of Chicago has cancelled its Midwest Conference on Rehabilitation scheduled for Monday, February 12, at the Drake Hotel in Chicago.

CANCELLATION OF NATIONAL CONFERENCE ON MEDICAL SERVICE

In compliance with a request received from the Office of Defense Transportation, the nineteenth annual session of the National Conference on Medical Service, scheduled for Sunday, February 11, at the Palmer House in Chicago, will not be held.

AMERICAN COLLEGE OF SURGEONS DEFERS WAR SESSIONS

The American College of Surgeons has deferred for the time being its 1945 series of War Sessions, four of which were to have been held in February, according to an announcement by Dr. Irvin Abell, Chairman of the Board of Regents. Dr. Abell states that plans had been completed for the February meetings because earlier indications were that sessions of a strictly educational nature, limited to relatively small local areas, would be sanctioned by the War Committee on Conventions, but it now develops that the transportation crisis is so acute that even this type of meeting should be omitted in order to help the war effort, and the College is glad to cooperate with the agencies responsible for the movement of military personnel and supplies.

BLUE CROSS IN IOWA

Hospital Service, Inc., of Iowa, the local Blue Cross Plan, celebrated its fifth anniversary last month with over 200,000 members, according to F. P. G. Lattner, Executive Director. Fifteen Iowa hospitals signed contracts for this service prior to January 1, 1940, when the first enrollment was started. Now seventy hospitals in this territory are extending this community service to employed persons and families in their respective areas.

Blue Cross has been referred to as one of the fastest moving programs in the country. Mr. Lattner states that 50,618 persons in Des Moines, or about 31 per cent of the population, are members. Up to last year the local plan confined the major portion of time on cities and towns, with the results that most of the larger cities of the state have from 25 to 50 per cent of the population covered.

Maternity care is the most expensive service given. The waiting period has been reduced to nine months and nursery care of the baby is now included while the mother is in the hospital. Hospital Service, Inc., of Iowa points with pride to its 3,669 prepaid Blue Cross babies up to the end of 1944.

The local Plan has increased benefits five times in four and one-half years and is one of the few Blue Cross Plans which extend the same benefits to its members in over 3,000 member hospitals of the other eighty-two plans located in the United States and Canada. Non-member benefits are available in any hospital in the whole world. The local plan is also one of eleven midwestern and southwestern plans that have agreed on 100 per cent reciprocal agreements on transfers of members from one territory to the other.

A rural enrollment program was started last year, giving the farmers and rural residents in towns of 2,500 or less the same privileges as the business, civic and industrial groups in the cities have had. Over 10,000 persons have Blue Cross through the County Health Improvement Associations, which are sponsored by the Farm Bureaus. These Associations make it possible for farmers to have the advantages of group enrollment. Ten counties have completed their first enrollment since the middle of last year, and many others are making plans to offer the protection early this year.

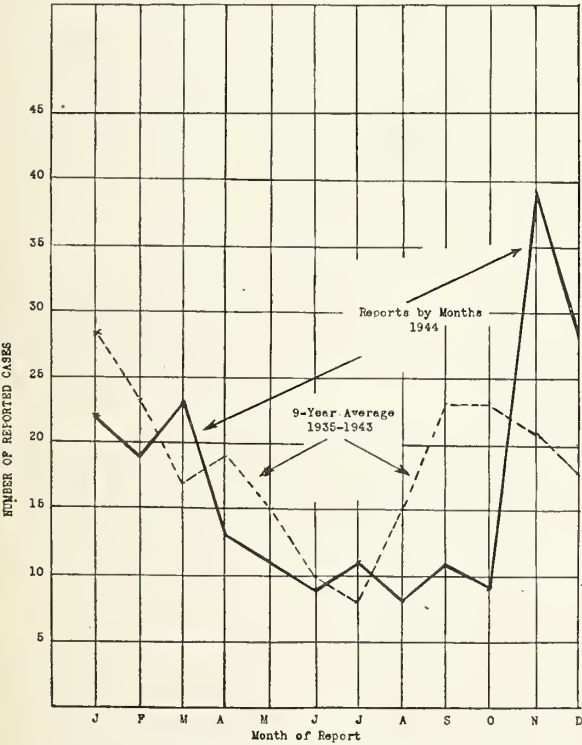
F. P. G. Lattner, Executive Director of the Plan, states that \$1,522,133.47 has been paid for hospital care of members since the company was formed. Officers and members of the Board of Directors are: R. D. Bernard, M.D., Clarion; James D. Brien, Des Moines; Charles Bryant, Des Moines; O. R. Christoferson, Moline, Illinois; George M. Crabb, M.D., Mason City; Mary L. Elder, Burlington; Paul Millhone, Clarinda; C. A. Mangelsdorf, Rock Island, Illinois; Carl G. Mullgrew, Dubuque; Paul G. Norris, Jr., Marshalltown; Martin I. Olsen, M.D., Des Moines; A. O. Lothringer, Davenport; Joseph Rosenfield, Des Moines; and J. P. VanHorn, Cedar Rapids. Mr. Rosenfield is President, Dr. Olsen, Vice President, and Mr. Brien, Secretary and Treasurer.

STATE DEPARTMENT OF HEALTH

Walter Diering

DIPHTHERIA IN 1944

Reported cases of diphtheria during the past year numbered 203. The solid line in the accompanying line diagram shows the number of cases as reported by months in 1944. The broken line represents the nine-year average of month-by-month reports for the period 1935-1943; it serves as a basis of what to expect during the months of a current year. It will be noted that the prevalence of diphtheria was below average during eight of the first ten months of last year. A sharp rise in reported incidence developed in November with 39 cases and continued through December. In January, 1945 (through January 19), reported cases were 14, the expected number for the entire month being 28.

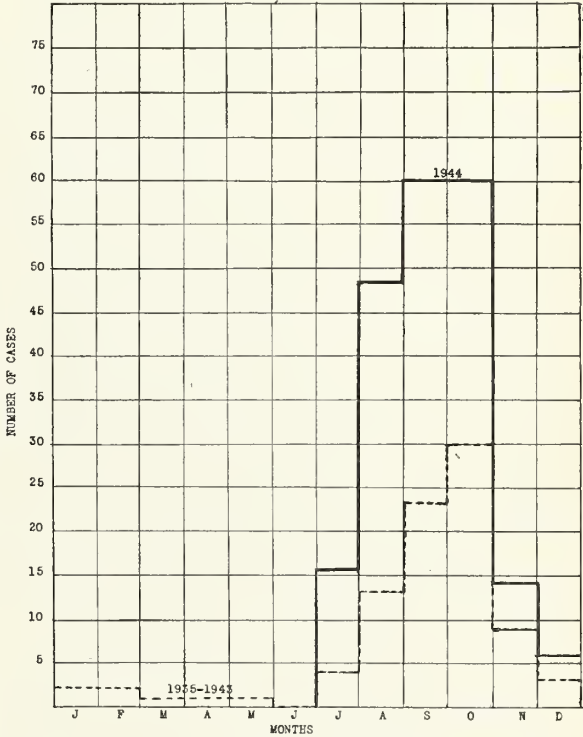


DIPHTHERIA IN IOWA—1944

Reported Prevalence by Months, Compared With the 9-Year Average for the Period 1935-1943.

POLIOMYELITIS DURING 1944

Although not a case of poliomyelitis was notified to the State Department of Health during the first six months of 1944, the disease developed above-expected prevalence in July and the year closed with a total of 204 reported cases. The accompanying histogram (solid line) portrays the undue incidence of poliomyelitis during the past season; the dotted line shows the expected level for each month, based on the reported morbidity experience of the past nine years (1935-1943).



POLIOMYELITIS IN IOWA—1944

Showing Reported Incidence by Months Compared With the 9-Year Average for the Period 1935-1943.

TRICHINIASIS OUTBREAK IN CEDAR COUNTY

The reporting of over 80 cases of trichiniasis (trichinosis) from Lowden and vicinity during the second and third weeks of January, 1945, constitutes the largest outbreak of this disease to

be notified to the State Department of Health during the past sixteen years. Report of the first cases was made by Fred Montz, M.D., local health officer of Lowden in Cedar County.

NATURE OF ILLNESS

Early complaints on the part of patients were of "stomach cramps" and diarrhea, the latter varying from a day in mild cases to a week or longer in persons more seriously ill. Other symptoms and signs included fever, sweating, headache, muscle and joint pains, urticaria, and swelling and edema of the face, particularly of the eyelids. Many of the patients had symptoms of onset between Christmas and New Year's or during the early part of January.

AGE AND SEX OF VICTIMS

Adults and middle-aged persons, male and female, as well as children, had illness and complaints as above mentioned. In some families all members of the household were sick. If anyone escaped illness, such a person had not partaken of the meat suspected of having caused infection.

CLINICAL DIAGNOSIS CONFIRMED BY LABORATORY TESTS

The clinical diagnosis of trichiniasis was confirmed by the finding of a high percentage of eosinophilia in blood films. Eosinophils comprised from 35 to 44 per cent of the white blood cells in differential counts as reported by I. H. Borts, M.D., Director, State Hygienic Laboratory.

TRICHINA LARVAE FOUND IN SAUSAGE

All of the patients had eaten one or more slices of smoked pork sausage known as "Mettwurst," made and purchased at a local meat market. Portions of several different sausages collected from homes in which illness occurred were examined at the State Hygienic Laboratory and by L. O. Nolf, Ph.D., of the Department of Zoology at the University of Iowa. Larvae of *Trichinella spiralis*, representing mild to moderately severe infestation, were found in the specimens of pork sausage.

POSSIBLE SOURCES OF INFESTATION

The sausage was made early in December, smoked for a period of about ten days and then sold during the following days. The hogs from which several lots of smoked sausage were made came from farms near Lowden. Field investigation and inquiry revealed that garbage had not been fed to hogs on these farms. However, rats were found to be present in large numbers. Laboratory work is being continued to determine

whether or not rats probably played an important part in the spread of *Trichina* infestation.

JAUNDICE OUTBREAK STUDIED

During the second week of January, 1945, a field study of an epidemic of infectious hepatitis (acute catarrhal jaundice) in Tama County, was conducted by the United States Public Health Service, in cooperation with attending physicians and the Iowa State Department of Health. Report of the first cases of jaundice was made by A. J. Wentzien, M.D., Local Health Officer, Tama, Iowa.

Investigation of approximately 100 cases of infectious hepatitis was made by Surgeon Dorland J. Davis, M.D. Arrangement for Dr. Davis's visit to Iowa was made by Charles Armstrong, M.D., Senior Surgeon, Division of Infectious Diseases, U. S. Public Health Service.

The study included securing of throat washings and blood specimens of a number of the patients in the early stage of illness; specimens for laboratory examination were forwarded to the National Institute of Health, Bethesda, Maryland.

General information with reference to infectious hepatitis (acute catarrhal jaundice) is contained in the Department's Rules and Regulations, pages 87-88. "There is considerable variation in the degree of severity of the disease, ranging from anicteric cases to cases of acute yellow atrophy of the liver. A similar clinical picture has been observed following certain industrial intoxications, anti-syphilitic treatment, and several immunization procedures, but the relation of these clinical conditions to infectious hepatitis has not been determined."

PREVALENCE OF DISEASE

Disease	Dec., '44	Nov., '44	Dec., '43	Most Cases Reported From
Diphtheria	28	39	7	Woodbury, Clinton, Muscatine
Scarlet Fever	220	224	552	Polk, Linn
Typhoid Fever	0	4	2	
Smallpox	0	1	4	
Measles	75	40	242	Guthrie, Woodbury
Whooping Cough	25	17	97	Dubuque, Des Moines
Brucellosis	13	35	35	Appanoose, Dubuque
Chickenpox	216	240	520	Woodbury, Dubuque, Mahaska
German Measles	2	2	71	Johnson
Influenza	0	1	22,659	
Malaria	10	75	0	Page
Meningococcus				
Meningitis	7	3	12	Wapello
Mumps	127	121	65	Johnson, Dubuque, Black Hawk
Pneumonia	32	32	129	Black Hawk, Marshall
Poliomyelitis	6	14	2	Carroll, Jones
Tuberculosis	49	39	54	For the State
Gonorrhea	171	244	122	For the State
Syphilis	122	163	184	For the State

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ISSUED MONTHLY

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AMERICAN MEDICAL ASSOCIATION NOT WITHOUT PROGRAM

Criticism of the American Medical Association is not infrequently heard from various sources to the effect that it has failed to advance a program for the extension of medical care in keeping with the changing needs of the times and that it insists upon the preservation of the "status quo," so far as the practice of medicine is concerned, of a quarter century ago.

That this is not a just criticism is clearly indicated by two statements approved and released on December 6, 1944, by the Council on Medical Service and Public Relations of the American Medical Association. These statements should be studied carefully by every member of the medical profession so that they may inform the public of medicine's proposals for extension of medical care.

Dr. Louis H. Bauer, member of the Board of Trustees and member of the Council, summarizes the revised platform of the American Medical Association adopted by the House of Delegates in June 1944 as follows:

1. Continued expansion of the practice of medicine with full development of approved voluntary hospital, medical, indemnity, industrial and commercial insurance against the costs of medical care.
2. Development of public health facilities for preventive medicine all over the country.
3. Development of adequate diagnostic facilities everywhere.
4. The use of the voluntary insurance principle in caring for the indigent and medically indigent.
5. The development of hospital facilities where present facilities are used to the utmost and are still inadequate.
6. The use of federal funds to aid communities in public health measures, care of the indigent and construction of necessary hospitals, when local communities are unable to finance the projects, but with retention of local administration.

7. The creation of a unified Federal Department of Health.

He further states, "This platform is the basis of a more widespread distribution of medical care in a manner that will solve the financial problems of illness which confront many people.

"Economically, there are four groups of people in the United States: (1) those who are financially well enough off to meet any situations which they may face; (2) those who can meet the ordinary costs of living and ordinary medical expenses, but who find it difficult to meet the costs of long and expensive illnesses; (3) those who can meet the costs of the bare necessities of life, but who cannot meet the costs of any sickness; and (4) the class which is dependent upon public aid for housing, clothing and nutrition, as well as medical care."

Groups two and three are those which particularly need help, says Dr. Bauer. Those in the first group can take care of themselves, and those in the fourth group are well provided for in most areas, but states, counties and towns should be urged to purchase voluntary insurance policies for their indigent and near indigent. Concerning voluntary insurance plans—the method proposed for meeting the needs of groups two and three—Dr. Bauer states, "In the development of any new type of insurance it takes time to make it successful and acceptable. Various voluntary non-profit medical indemnity and service plans have been developed and modified and are being increasingly well distributed over the country. Growth has been slow, but during the past year growth has been more rapid, and ideas as to the best type of plan are gradually crystallizing. There have been industrial plans existing in some cases for as long as 20 years, but there are many which have developed during the past few years. Commercial insurance is becoming increasingly available. Group hospital insurance has grown rapidly. There are now over 16,000,000 people covered by group hospital insurance; there are about 25,000,000 covered, to at least some degree, by voluntary non-profit medical, industrial and commercial plans. These plans must be made available to everyone desiring coverage at a cost within his means to pay."

Dr. Bauer further states that "The Council feels that such plans, including group hospital insurance, can be made effective at a far less cost and with more satisfactory service than any compulsory government controlled plans." He also indicates that the platform of the American Medical Association recognizes that there are too many counties or districts without adequate health supervision and it urges that every area be

properly covered. Federal funds may be used for extending public health facilities and medical care of the indigent if the local community is unable to do so, but the administration of the problem should be decentralized and local rather than federal. The needs of communities as to hospitals, diagnostic facilities, and practicing physicians must be met, but only after present facilities are used to the utmost.

Dr. Bauer concludes that "the facts are that the public is demanding a method of prepaying its medical bills, particularly in the case of so-called catastrophic illness, and that it wants that method on a voluntary basis. It further desires that medical care to be of a high quality and readily available."

The second statement is by Dr. John H. Fitzgibbon, Chairman of the Council. Says Dr. Fitzgibbon, "The objective of the medical profession of this country is the provision of good medical care to every person in the United States. The Council on Medical Service and Public Relations intends to promote this objective. Solution of the problem of providing medical care of good quality is not simple because of varying conditions in different communities, particularly economic and environmental conditions which, while not generally considered health problems, have a marked effect upon the health of persons concerned. Eradication of conditions contributing to poor health in a community requires joint action by the medical profession and other public spirited persons.

"In providing good medical care to the entire nation three phases of the problem must be solved.

"(1) Adequate trained professional personnel and facilities for providing preventive, diagnostic, and treatment services must be made available to all areas;

"(2) Sound economic arrangements for financing these services and facilities must be set up; and

"(3) Educational efforts will be required to inform the people of the value of good medical care in order to induce them to make intelligent use of the services and facilities made available."

Other planks in the platform of the American Medical Association stressed by Fitzgibbon are:

A. In the extension of medical services to all people, the utmost utilization of qualified medical and hospital facilities already established.

B. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability, including the development and extension of voluntary hospital insurance and voluntary medical insurance.

C. Expansion of public health and medical services consistent with the American system of democracy.

D. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

E. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

F. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

G. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

Here, then, are important statements from two outstanding and nationally recognized officials of the American Medical Association, which give in clear-cut fashion medicine's proposals for meeting the medical needs of all our citizens. This is not a "status quo" platform; nor is it state medicine. But it is the American way of meeting problems. Let us all get behind our Association's platform and strive to make it work!

STREPTOCOCCOSIS

Every physician is fully aware of the important rôle played by the streptococcus in human disease, but to combine its various manifestations as observed in different age periods under a single heading, as we are accustomed to do in tuberculosis, is perhaps a concept which has escaped many of us.

Powers and Boisvert present this practical and instructive point of view in a paper published in the December 1944 issue of the *Journal of Pediatrics* under the title "Age in Streptococcosis." The authors first stress the fact that age is an important modifying factor in the morbid processes resulting from the same infecting agent. As an illustration they refer to tuberculosis with its well-known childhood, latent, and adult manifestations. Infection produced by the hemolytic streptococcus, Group A, presents comparable variations in its clinical manifestations to tuberculosis. Thus, under the over-all term of streptococcosis the clinical designations of childhood, intermediate, adult, and latent types are specified, and included are the various septic complications occurring at any age, plus hemorrhagic nephritis and rheumatism which are unusual in infants and young children.

Streptococcal fever, childhood type, is the common form of streptococcosis in children under three years of age. In infants under six months the disease is usually mild, manifests itself by a characteristic nasal discharge and is over in a period of five to six weeks, but children between six months and three years of age are more severely ill. The onset may be with symptoms of an acute nose and throat infection. Fever, high at first,

may last from six to eight weeks; cervical glands become involved; otitis media is frequent; anemia develops; appetite is poor; and the children are fretful and unhappy. Convalescence and return to health may be a matter of months. Bacteremia occurs not infrequently in this group and hemolytic streptococcus, Group A, is usually the predominant organism to be recovered from the nose and throat. Sequelae such as hemorrhagic nephritis or rheumatic fever are rare, but suppurative complications are frequent. Here, then, is the young child's reaction to his first infection with hemolytic streptococcus—a generalized, sub-acute, long drawn out process. This needs to be contrasted with the older child's or adult's reaction (most of whom have had previous infections). In these patients the attack is focalized as in acute tonsillitis, is short and abrupt in its clinical course, and characteristic complications are peritonsillar abscesses, hemorrhagic nephritis, and perhaps rheumatic fever.

The intermediate type of streptococcal fever, between the childhood type on the one hand and the adult type on the other, is scarlet fever occurring most frequently in persons between the ages of three and ten. The latent type of streptococcosis refers to individuals of any age who are carriers of hemolytic streptococci.

In the ten year period from 1934 to 1944 there were admitted to the pediatric service of the New Haven Hospital 8,889 patients of whom 1,237 or 14 per cent were diagnosed as having streptococcosis. Seven per cent of the admissions in the first year of life had streptococcosis, but the highest proportions came in the sixth year with 22 per cent; of these 38 per cent had scarlet fever. The authors go on to designate the number and age distribution of the various purulent streptococcal lesions commonly associated with streptococcal fevers. Thus otitis media, cervical adenitis, bacteremia, all had their greatest incidence in the first five years of life. Two-thirds of the cases of streptococcic empyema and 80 per cent of the cases of streptococcic peritonitis occurred in children under seven years. On the other hand, of 143 cases of acute hemorrhagic nephritis only three patients were under two years of age and 100 were between two and ten years of age. Statistics are also given for erysipelas, infected eczema, vaginitis, and so forth, but the reader is referred to the original article for further information concerning these.

Our point will have been established if we have made it clear that the chain of events which follows the successful implantation of hemolytic streptococci in the respiratory tract of individuals follows a different pattern depending upon the

age of the individual and that the whole chain of events can be designated under the term streptococcal fever. Particularly are we impressed with the usefulness of this term in giving a more inclusive concept of a disease process in the first three years of life.

CONGENITAL MALFORMATIONS ARISING FROM DEFICIENT MATERNAL DIET

In a previous issue (December 1944) we called attention in these columns to certain congenital malformations (heart, cataract, microphthalmia, etc.) which had been observed in the offspring of women who had had German measles in the early months of pregnancy.

Now another cause has been advanced for other types of congenital malformations. It should be stated, however, that thus far these observations have been made only in the experimental animal. Proof that a similar situation exists in the human remains to be demonstrated. Josef Warkany of the Children's Hospital Research Foundation and the Department of Pediatrics at Cincinnati, Ohio, presented his experimental findings before the meeting of the American Academy of Pediatrics in St. Louis in November 1944, and his paper is published in the December 1944 issue of the *Journal of Pediatrics*.

In the rat congenital malformations could be regularly induced in the offspring when the maternal diet was made deficient in vitamin A, in riboflavin, or in vitamin D. Malformations observed were different for each type of vitamin deficiency. Thus, if the diet of the maternal rat was deficient in carotene and vitamin A, such of the young as were born alive were blind and had deformed eyes. Addition of vitamin A to the maternal diet prevented these deformities. The point is emphasized that such deformities are not genetic in origin but are the result of arrest of development in an early embryonic stage.

Another experimental group of rats was reared and bred on Steenbock and Block's rachitogenic diet but they were given vitamin D to prevent rickets. About one-third of the young showed deformities, largely skeletal, such as shortness of the mandible, radius, ulna, tibia, and fibula, fusion of the ribs, syndactylism of the fingers and toes, and cleft palate. Addition of liver to the maternal diet prevented the appearance of the deformities. A further search to find the responsible factor in liver proved it to be riboflavin. From histologic study of the rat embryo Warkany postulates that the malformations resulting from a riboflavin maternal diet deficiency are determined not before the thirteenth and not after the fifteenth day

(Continued on page 65)

ROMANCES OF CARDIOLOGY

DANIEL J. GLOMSET, M.D., Des Moines

There were giants in the Land (Gen. 6:4)

I like to think of man as living on the Island of the Known surrounded by the vast Sea of the Unknown. This Island exists because of men's curiosity, intelligence, and energy. At the dawn of history it was but a tiny speck; down through the ages it has gradually grown until today it is of continental size. So vast is knowledge that a single individual can master but a small part of it. The growth of the Island has not been steady. There have been periods when it rose rapidly out of the Ocean. There have been centuries when its coast line remained stationary. And there have been periods when parts of the Known have sunk back into that "Immortal Sea from whence it came."

Medical science forms a considerable part of the Island of the Known. A phase of this science deals with the anatomy, the physiology, and the diseases of the heart. This is called cardiology. I like to think of it as a Cape jutting out into the Ocean of the Unknown from the medical Peninsula of the Island of the Known. The Cape of Cardiology has been elevated from, and extended into the Sea of the Unknown by the sweat, blood, and tears of scientific giants in the earth. I should like to tell you about the development and growth of cardiology and give you my impressions of some of the giants whose sweat, blood, and tears raised it.

Cardiology is a youth among the sciences. When the sixteenth century came to a close, it did not exist. To be sure, Hippocrates knew of the heart. He thought it the site of the soul, immune to disease; and Eristratus wrote about it as a muscular pump. Galen, who was born in 130 A. D., discovered by actual experiments that the arteries contained blood, and not vapor, as was believed prior to his day. But he then developed the most fantastic theories about the function of the heart and the blood. He held that the blood was formed in the liver, ebbed and flowed as two well balanced systems from the liver, through the heart, to the rest of the body. From the liver the blood moved to the right heart, thence by invisible pores through the ventricular septum to be purified by the spirit from the lungs in the left heart. After this it once more ebbed and flowed through the arteries to supply the body. Because of Galen's many contributions to medicine, he was almost deified by the doctors, just as the bishops deified

the person and the sayings of the Carpenter from Nazareth, and under the soporific influence of such deifications the dark ages set in. For thirteen centuries and more the writings of Galen became the holy writ of medicine, and woe to him who even dared to question the sacred sayings of the semi-god. The intellectual life died, darkness covered the earth, and there was no spirit of God brooding over it.

The first reawakening of the human intellect occurred in the universities which were established in Europe in the thirteenth, fourteenth, and fifteenth centuries. These were founded first in Italy, later in other parts of Christendom. It was in these institutions that truth-seeking men began to think and to enjoy the thoughts of others. It was here that the curse upon unseeing eyes and non-hearing ears was lifted. In the middle of the fifteenth century, two, yes, even three significant events took place: the invention of printing in Germany (1448); the destruction of the Byzantine Empire with the fall of Constantinople (1453); and the driving out from Mainz of the German master printers by the Duke of Nassau (1462).

The Byzantine scholars, who had kept "the light which was Hellas" flickering during the dark centuries, were driven into exile by the Turks. They naturally traveled to congenial places and took the papyrus of the old Greek writers with them. Large numbers of the Greek scholars settled in and around the Italian universities, and students of Padua, Florence, Bologna, and other universities began to search eagerly the "Greek Scriptures." It became the vogue to read Greek manuscripts, to study them in the original, and to translate them into the language used by the students. The German printers, too, flocked to the university towns and began to print good translations of the original works of the great Greeks and to spread the books throughout the western world. Thus the Greek ferment spread to thinking men by the printed book, and caused rapid growth of the Island of the Known. The Renaissance was on! Columbus and his sailors dared to sail west to fall off the edge of the world. Copernicus found that the earth and the other planets revolved around the sun. Luther defied the Pope and got by with it. Henry VIII also defied the Pope—to be sure from a less

worthy motive! He, too, got by with it! And Leonardo de Vinci painted accurately what he saw, not according to his teachers' precepts.

Students from all over Europe flocked to the intellectually vigorous universities of Italy. Among them were a Flemish medical student, Andreas Vesalius, and a Greek student from England, John Caius. The two became fellow lodgers at Padua, then the queen of the arts. Vesalius knew his Galen, and Caius, an instructor in Greek, was evidently looking for more Galenic manuscripts to translate. One can imagine that the two talked a lot about Galen and that Vesalius invited his English friend to the anatomic laboratory to show him how erroneous some of Galen's theories were. Vesalius was at that time working hard on his *Corporis Humani Fabrica*, which he published at the age of twenty-eight. Vesalius had put the best he had into that book and naturally expected proper recognition from his colleagues. He did not get it. Then, as now, the deadheads covered their nakedness with a cloak of silence. Those who had publicly affirmed Galen heaped abuse on the young upstart from the provinces who had the nerve to state in print that the mighty Galen was often wrong. Vesalius's own teacher, Valsalva, led in heaping abuse on the man who by his labor had started the medical Renaissance. Vesalius got tears for his sweat. In a fit of anger he threw his manuscripts into the fire, left Padua and its pinheaded professors, and went to Spain to live in ease and peace as physician to Charles V. However, he had started a new era in medicine! And although he must have thought he had labored in vain at Padua, his able pupils, Fabricius and Columbus, carried on after him.

Meanwhile John Caius had returned to England, three years after the publication of the *Fabrica*, not as a teacher of Greek, but as instructor of anatomy for the English barber surgeons. His lectures in anatomy became so popular that he determined to found a college for those who wanted to study medicine. Caius College at Cambridge began its courses in 1558. By a special grant from Henry VIII the college was permitted to hold two public dissections a year. The college prospered under the direction of its freethinking founder, who had a stomach perverse to the clergy. Its fame spread over England and reached the ears of a Folkstone lad who had a yen for the study of medicine. In 1593 this lad, William Harvey, was enrolled in Caius College. Four years later he graduated as a Bachelor of Arts. The spirit of the founder was very much alive at Caius during Harvey's student years. He must have heard about the great Vesalius, and about Servetus too, for he had described the pulmonary

circulation a few years after Caius's return to England. Servetus was later burned by the bigoted Calvin in the fire from his own hot tirades against the reformer. Harvey might well, as Osler suggests, have read Caius's *De Libris Propries*, and from that obtained the high opinion of the Mater Gloriosa Studiorum at Padua. At any rate, Harvey went there for his medicine.

Harvey enrolled at Padua in 1598. The short, raven-haired Briton with the black, flashy eyes found that Padua measured fully up to his high expectations. He made a good impression on fellow students and professors alike, although perhaps for different reasons. He was elected representative from Britain to the student organization. One of the privileges appertaining thereunto was that of getting drunk forty-two times a year! Alas, the nature of medical students changes but little with the passing of centuries! The faculty was impressed from the beginning with the intelligence and industry of the young Englishman. When he graduated, his diploma carried the inscription that he had exceeded even the highest expectations of his teachers.

Perhaps it was Fabricius who had insisted on that extra bit of praise written on Harvey's diploma. For Fabricius of Aquapendente was at that time studying the valves of the veins, and one likes to think that young Harvey helped him with the dissections. The valves occur at varying intervals in the lumina of the veins. They close away from the heart and permit the blood to flow freely toward the organ. Fabricius, who apparently had profited by the sad experience of Vesalius, sought to explain the function of the valves in such a way as to square with Galen's theories. Harvey heard Fabricius again and again state that the valves were dams placed in the veins to prevent too much blood from ebbing into the extremities. But to a Caius-trained man Galen was not the god that he was at Padua. Harvey must have doubted his teacher's explanation, for as soon as he returned to England he continued the study of the valves of the veins from the point where Fabricius had left it. He began by dissecting all sorts of animals. Even his wife's parrot went under the knife. Harvey discovered that the valves were not dams, that they entirely closed the lumen of the vessels, that valves occurred in the veins going to the head as well as in those going to the extremities. Certainly there was no need for preventing too much blood going to the brain. Therefore, Fabricius's explanation did not square with the facts. Furthermore, the arteries were free from valves except at their mouths. Hence, the blood did not oscillate back and forth, but was forced to flow to the heart in the veins and away from it in the arteries.

Servetus had held that the blood circulated from the heart to the lungs and back to the heart only so far as the lungs were concerned, that Galen's theory held for the rest of the body. But Harvey found that the artery to the lungs from the right ventricle was every bit as large as the one to the rest of the body from the left ventricle. The scent was warm! Then he removed the breast bone from live animals and opened the heart sac in order to observe what was actually going on. At first he was disappointed. In the small, warm-blooded animals he used, the heart beat so fast that he could not tell what was going on. But when the animals became moribund the story was plain, as it was also in all cold-blooded animals, since the heart beat slowly enough to get a clear picture! During systole the heart contracted, became smaller and anemic, during diastole it dilated and became distended with blood. The heart acted as a pump! But he felt that he had to obtain still more proof, and therefore made careful measurements of the heart chambers and calculated their cubic content. He must have been astonished by the large amount of blood which his figures showed was expelled from the heart every hour. In the slaughter house he learned not only how long it took an animal to bleed to death from a severed artery, but also how much blood the body actually contained. It was clear from the facts observed that the pumping heart expelled all the blood found in the body, in a matter of seconds, not hours. Hence, his observations on man and other animals, his physiologic experiments and his calculations, proved that Galen's theories were erroneous. Harvey's investigations indicated that the blood was pumped from the heart into the arteries and returned to the organ via the veins, and that it circulated constantly through the body by the force exerted by the contracting ventricles.

He demonstrated his experiments and advanced his conception of the circulation of the blood in his first Lumleian lecture, given before the Royal College of Physicians in the year 1616. For twelve years thereafter he continued to expound his views and to add further proof to substantiate his conception of the circulation. Finally, in 1628, he published the result of his work in the most famous of all books on the heart, *De Motu Cordis*. Thus Harvey lifted single-handed, almost the whole Cape of Cardiology out of the Sea of the Unknown.

I am not aware that the college of distinguished physicians ordered a celebration in honor of his discovery at the time that the announcement was made, but that same body and many similar societies have held any number of special "Harvey meetings" since. Such celebrations are indeed fitting and proper because by his toil, Harvey be-

came the Father of Cardiology. His claim to distinction rests not only on his discovery, but also on the fact that his methods are responsible for the progress made in cardiology since his day. Indeed, they are the methods of Science responsible for any advancement of knowledge. Harvey familiarized himself with the facts and the theories held by the generations before him. He carefully weighed them; then by his own observations, by his experiments on man and other animals, and by accurate measurements and calculations, he obtained factual information from which he drew new logical and valid conclusions.

The influence of Harvey upon scientific medicine cannot be overstated; yet, his work was coolly received. A number of his colleagues who listened to him in 1616, did not even mention his discovery in treatises on anatomy which they later wrote. One "stuffed shirt," a Sir somebody, delivered himself of an oracular utterance which he likely thought was the final judgment on the work of Harvey. According to the baronet, Harvey must indeed have worked hard to have produced his *Motu Cordis*, and it must have been a great satisfaction to him to have accomplished so much, but, of course, such efforts could have no influence on clinical medicine! The young physicians, fired with the spirit of the Renaissance, cheerfully accepted Harvey's views, but some professors in high places abroad, notably Potain of Paris, bitterly assailed them, and there were many in England who were eager to throw mud at the "Circulator." Some of Cromwell's rabble actually entered Harvey's house and burned many of his manuscripts. However, by the end of the century Harvey's views were held by most physicians. By this time, too, the new spirit had permeated the entire medical profession. Progressive men sought to learn by careful observation rather than from the theories of the ancients.

Harvey's work on the circulation focused men's attention upon the heart and its diseases. During the eighteenth century the Cape of Cardiology was lifted further out of the Sea of the Unknown by the work of physicians in many lands. With one exception, the giants of that century: Vieussens (1641-1716), Lancisi (1655-1720), Albertini (1662-1738), Senac (1693-1770), Morgagni (1681-1771), and Heberden (1710-1801) were not of conspicuous size. Their contribution consisted of careful clinical observation, feeble attempts at physical diagnosis, and thorough study of the morbid changes found at the autopsy table. From their studies they sought to understand the nature of cardiac disorders and to develop a rational therapy. And, toward the end of the eighteenth century, in the short space of a little over a hun-

dred years, the function of the heart had been established. It had been conclusively shown that the vital pump, which since Hippocratic times had been held to be immune to disease, was as susceptible as any other organ to morbid changes; indeed, that failure of this organ was frequently the sole cause of death.

The incompleteness of medical knowledge which existed at the end of the eighteenth century was due neither to lack of intelligence nor to lack of industry on the part of its physicians. The help of the natural sciences was needed, and also the knowledge of micro-organisms before the signs of cardiac disease in the living could be accurately detected, and the nature of many cardiac disorders understood.

Fortunately, the whole Island of the Known was rapidly enlarging: Natural Science was growing fast. In 1609 Kepler published his *Astronomica Nova*; in 1610 Galileo invented the compound microscope; in 1620 Von Helmholtz demonstrated the conservation of matter, and in 1687 Newton published his *Principia*. Such remarkable advancement of Natural Science profoundly affected man's attitude toward himself and his universe. During the long centuries when bishops controlled human thought, man was considered to be something apart from the rest of nature. He came into being by a special creation, was, so to speak, the pet of the Creator, and had priority claim on His power. So long as man remained in good standing with his Maker he was protected from the fierce natural forces which raised havoc with the rest of creation. However, after the publication of the *Principia*, it dawned more and more on thinking man that he was but a part of the whole, that the laws which governed Newton's apple were equally applicable to himself. From that day until this, man has assiduously studied natural law for his own protection and for the better understanding of himself.

BLOOD PRESSURE

It is a bit odd that a "sky pilot" should have been the first to apply the methods of physics to the study of human physiology. Rev. Stephen Hales (1677-1761) must have loved science more than theology, for he was busy studying natural phenomena. He developed a water supply system for his parish, artificial ventilation for a nearby prison, and published many statistical volumes on his experiments. It occurred to him one day to measure the force exerted by the contracting heart. He took a mare, tied her down on her back, slit the skin in the neck, found the artery going to the brain, and inserted a canula to which was attached an upright glass tube, and proceeded to record the

height of the blood column in systole and diastole. He had taken the first blood pressure readings and had extended the Cape of Cardiology a bit farther into the Sea of the Unknown. One can readily imagine "wise" physicians of his day feeling perfectly certain that Hales' experiment had no practical value whatever. For centuries it didn't! Even during my medical school days none of the teachers mentioned blood pressure, but today no physical examination is made without recording it. It is now known that high blood pressure kills more persons than cancer and tuberculosis combined.

PERCUSSION

In the middle of the eighteenth century there lived in the town of Graz, Austria, an innkeeper, whose son, Leopold, had a musical ear. One can imagine the little boy trotting into the cellar after his father as he drew beer or wine for his customers. The boy noticed that the father knocked on the barrel staves when he wanted to find out how much beer was left. Above the beer level the barrel was resonant; below the level it was dull. During the extremely full years at the medical school in Vienna, Leopold forgot the kegs in his father's cellar. Later when he worked as assistant to the clinic and still later as chief of the hospital of the Holy Trinity, he had opportunity again and again to observe gross lesions in the chest at necropsy which had been overlooked in the clinic. The hospitals in Vienna, then as now, were filled with chest-sick people. Fluid in the pleural sac is an exceedingly common finding at post mortem in such cases. Yet, the Viennese doctors were unable to recognize the fluid during life. It must have been while pondering this fact that Leopold Auenbrugger recalled his experience with the beer barrels. He tried knocking on patients' chests, and perhaps he tapped one in whom he suspected the presence of pleural fluid. He must have grown excited when he found the fluid at autopsy in the place where he had detected dullness. He had discovered a new method of obtaining accurate information about normal and abnormal conditions in the chest. For six years he and his assistants thumped chests, made notes of their findings, and verified their impressions at the autopsy table. Then, in the same year that Morgagni published *De Sedibus*, he sent to the printers his *Inventum Novum*, a ninety-six page treatise on percussion. Auenbrugger states: "I am not moved to write by an itch for writing but by a desire to impart to my profession what I have discovered." The book was brief. Van Swieten, his chief, had advised him to be brief if he had to write at all! But the *Inventum* was accurate and clear. Still, the author

did not expect his contribution to be accepted by the high and mighty Van Swieten at the medical school, and why should the Baron learn from the son of a Gratzian innkeeper! Why should the great Van Swieten, pupil of the immortal Boerhave, who marched at the head of a mighty army of admirers through the wards at the Krankenhaus, listen to the peasant's son from Graz. So the medical army under Van Swieten continued to stamp through the wards at the Krankenhaus and to listen reverently to the baron's discussions on "Heimweh." The *Inventum Novum* "fell flat." The new part of cardiology, which Leopold Auenbrugger had lifted from the Sea of the Unknown, slowly and almost completely sank back from whence it came. For forty years percussion remained an almost forgotten medical art! Yet there were persons at the Holy Trinity Hospital who did not quite forget what Auenbrugger had taught. One of these was Max Stahl, who left Vienna to seek greener pastures in Paris and brought the memory of the pompous Van Swieten, his medical ward army, and a copy of the *Inventum Novum* with him. When he observed that Corvisart was trying to develop real clinical courses at the Charite, he evidently told the great French cardiologist how clinics were conducted in Vienna. Corvisart liked the idea of a ward army and copied it. When Stahl heard Corvisart complain of his inability to make correct chest diagnosis, he handed him a copy of the *Inventum Novum*. The great French cardiologist liked the book too.

When Corvisart found that he could verify the statements made by Auenbrugger, he began to practice percussion on all his patients. One can imagine the impressive thumping of chests carried on by the medical army trailing after him through the wards. The thumping became the talk of the town. Even Napoleon heard about it; and when the General had a chest cold, Josephine sent for the thumper. From then on the two men were friends and buddies.

During the first decade of the nineteenth century the College of France attained its "Glanz" period. Strong progressive men dominated the various departments and by brilliance of intellect and diligence secured a name for themselves and glory for Parisian medicine. Young doctors from the old and the new world flocked to Paris. It was during that decade that Corvisart eloquently held forth on cardiac disorders and on the value of percussion to the admiring doctors who tramped with him through the wards at the Charite.

AUSCULTATION

In that clinical group was a thin little Breton who, after many trials and tribulations, had suc-

ceeded in enrolling in the service of the great Corvisart. The young man was Théophile Laënnec. His uncle, Guillaume, had inspired him to study medicine rather than theology and had finally forced enough money from Theophile's improvident father to permit the brilliant son to enroll. This had not happened, however, before Théophile had taken twice all the courses offered at his uncle's school at Nantes! Uncle Guillaume was filled with the new spirit of medicine, for he had been in England and had come under the spell of that redheaded roughneck, John Hunter, who became father of experimental surgery. This vigorous, daring Scot had no use for old theories. To him knowledge could only be acquired by personal observation and experimentation. The uncle must have told his nephew, again and again, about the great Britisher and have mentioned with pride the fact that France had a giant of its own—the percusser, Corvisart. Hence, young Laënnec became a devoted follower of the great French cardiologist. Before entering Corvisart's service, Théophile had distinguished himself as a morbid anatomist, had published many excellent papers, and had won so many prizes that other contestants refused to enter when they learned that the young Breton was a contestant. Laënnec had a special interest in the clinical phases of diseases of the chest because, like Bayle, who was his senior on Corvisart's service, he, too, was a "lunger."

By 1816 Laënnec had been appointed chief of medicine at Necker Hospital where he had ample opportunity to study chest cases. His training in morbid anatomy, his tutelage under Corvisart, and his own observations on 600 clinical cases made him well equipped to solve problems in the pathology of the chest. Just as Corvisart had been especially interested in cardiac diseases, Laënnec, whose own lungs continued to bother him, was eager to learn about the clinical manifestations of the morbid changes in the lungs. One can imagine the young chief attacking chest problems at The Necker with true "Laënnecian" energy. But he must have been discouraged and disgusted many times during his first year there. In spite of careful history-taking, inspection, palpation, and percussion, it happened too frequently that the pathologist found conditions present at autopsy that had not been suspected on the wards. The gap between the clinical and the anatomic diagnosis was far too wide to suit the former exacting morbid anatomist.

One day there appeared at The Necker an obese young woman who obviously had heart disease. Percussion was unsatisfactory. Laënnec wondered whether the sounds in the thorax itself would not furnish helpful hints. Hippocrates had taught that

the physician should place his ear against the naked chest of the patient to listen for sounds. Robert Hooke had stated a century before that one could hear the heart sounds, the wheezing noises of the air passing in and out of the bronchi, and the rumblings of the bowels. In Corvisart's Clinic direct auscultation had sometimes been practiced. At the Charite such auscultation had not been of much help, and Laënnec did not like the procedure. It confused him because he was asthmatic and became short of breath when he stooped to listen. He was naturally modest and embarrassed at such intimate contact with female skin, and what was still worse was that many of the patients had lice. Yet, he tried to listen to the fat woman's heart, heard nothing, left the patient, disgusted, and did what most Parisians do to soothe "their savage breasts"—went for a walk in the beautiful gardens of the Louvre. Even this beauty spot was untidy at that time, for France had just gone through its bloody revolution, and with "Liberte, Equalite—Fraternite" ringing in his ears, the caretaker let the rubbish accumulate. On top of a pile of trash lay a long wooden beam. The promenading doctor noted that a flock of urchins were having a delightful time playing with it. One group was tapping at one end while the others listened at the opposite end. Laënnec saw and understood. He wheeled around, rushed back to the hospital and over to the fat lady. To the astonishment of the hospital personnel and the patient, he grabbed a paper-covered book, rolled it up into a cylinder, put one end over the patient's heart, the other end to his ear. For the first time man heard the lub-dub of the heart beat and perhaps also a murmur. The sounds of the chest had been made audible. The stethoscope had been invented. A new large part of the Cape of Cardiology had been raised out of the Sea of the Unknown!

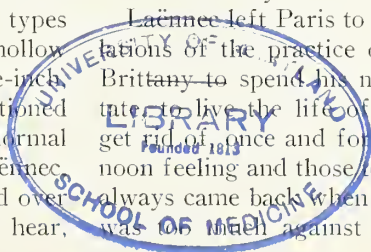
The idea which starts an invention or a discovery is often followed by a strong sustained desire to make the new as perfect as possible. Little Secco, as Madame Chateaubriand called Laënnec, and who was known to medical circles in Paris for his indefatigable energy, fully realized that the children on the beam had opened new medical horizons. Under the spell of the urge to explore its possibilities, he redoubled his energies. The cylinder had to be improved. He bought himself a lathe and proceeded to turn out tubes from many types of wood. He tried solid cylinders and hollow ones. Finally, he was satisfied that a twelve-inch two-piece cylinder made of soft wood functioned best. He began mediate auscultation, over normal and abnormal lungs and hearts. Then Laënnec, the writer, tried to describe the sounds heard over the chest. Since his ears were the first to hear,

he had to invent new words and phrases to describe them. Many of his terms are in use at present.

When the fact that he was "auscultating" got around, the procedure became popular. Others wanted the credit for the discovery and began to write and talk about it as of their own making. Laënnec, who fully realized how much more there was to be learned about mediate auscultation, was forced to present before the Academy of Science, *A Memoir of Auscultation* (1818). It was listened to by the learned doctors with respect but without the slightest trace of enthusiasm. They refrained from committing themselves! It evidently took more than a memoir to put auscultation over. But Laënnec was exhausted and discouraged. He left Paris and went for a much needed vacation to Brittany. When he returned to The Necker, he received a rousing welcome from his associates. Rested and cheered by the loyalty of those who had worked with him, he set about to complete the work he had planned. He tinkered with the cylinder which by now had become the high-faluting stethoscope, and he revised and enlarged various chapters of his book on auscultation. It was to be a treatise on the diseases of the chest in the light of inspection, palpation, and auscultation.

In 1819 the *Traite de l'Auscultation* came off the press. It was in two volumes and sold for eighteen francs. The price of the book included a well turned-out walnut stethoscope, so that anyone who bought the book could determine for himself the value of the new method. The book and stethoscope were Laënnec's answer to the silence of his colleagues and to the jibes of the scoffers. I wonder if the deeply religious Théophile sent the book out with a prayer that his profession would at least try the new method before condemning it. If he did, the prayer was unanswered, at least for a season, for the book was resented by his colleagues. The doctors who tried auscultation were looked upon as charlatans and the stethoscope was ridiculed in poetry and cartoon. The high-strung, sick, overworked Laënnec "could not take it." He did not, like Vesalius, burn his books. He gave them away, resigned his position at The Necker, and fled back to his beloved Brittany to seek peace by working on the very soil under which so many of our own boys have found everlasting peace.

Laënnec left Paris to escape the trials and tribulations of the practice of medicine. He came to Brittany to spend his money on the ancestral estate, to live the life of a country squire, and to get rid of once and for all, that tired all-in-afternoon feeling and those terrible night sweats, which always came back when he over-did and the world was too much against him. He got rid of his



money fast enough, too fast to suit a frugal Frenchman. The country squire existence was delightful for a season. But then, that insistent longing, "To follow knowledge like a sinking star," came back. He returned to Paris in 1821 and found himself famous. All copies of his book had been sold. The stethoscope-makers were doing a rushing business; auscultation was going over in a big way. The new method spread like a prairie fire over the medical world. Its discoverer was appointed royal lecturer at the Medical School (1822) and became a member of the Legion of Honor (1824).

By auscultation anyone who has normal ears, a modicum of brain, and the will to learn, can obtain a far more accurate picture of disease, process in the chest than was possible prior to 1819. No doctor now would think of practicing without a stethoscope. By his sweat, blood, and tears Laënnec greatly narrowed the gap between clinical and anatomic diagnosis of chest lesions. But he did not close it!

ROENTGENOLOGY

Man perceives the manifestations of disease through his senses. The principal reason that the medical profession remained ignorant about diseases of the chest for centuries was that the observers could not look into the living man's thorax. Not even the most visionary dreamed that some day it might be possible actually to see the workings of the lungs and the heart. This miraculous achievement was made possible by Roentgen. In 1888 William Conrad Roentgen was elected professor of physics at the University of Wurzburg. This happened just a few years after the faculty of that institution had refused to grant him a higher degree because he did not know enough. Since his failure to measure up to their standard, Roentgen had so distinguished himself that by 1888 the University of Wurzburg had to compete with that of Jena to procure him to head its physical institute.

During the nineteenth century physics had made tremendous forward strides. By 1890 many well equipped physical laboratories were able to generate strong induction currents. During the decade which followed, physicists became interested in the effect produced by passing a high tension induction current through a vacuum tube. This problem interested Roentgen also. He secured a Ruhmkorff induction coil and Hittorf-Crookes vacuum tubes. Because he wished to repeat the work on the cathode rays done by Hertz and Lenard, he also obtained the armamentarium employed

by them. This consisted of Lenard's tubes, a fluorescent screen, and photographic plates. Roentgen, like others in search of new knowledge, had discovered that research is best done in the evening after the day's routine is over and the assistants have gone home. On the evening of November 28, 1895, the professor was in his laboratory, monkeying with his apparatus in the dark. The Lenard and the Crookes tubes were standing on a table near the screen. On a table some distance away lay a paper which had been impregnated with the fluorescent crystals of platinum barium cyanide. He had already completed the Hertz-Lenard's experiment, which consisted of sending the current through a Lenard tube, covered with black paper which had a round hole that permitted the cathode ray to pass to the fluorescent screen. Next he covered the Crookes tube with black paper and sent the current through it, presumably to test the black covering. While the switch was on, Roentgen happened to glance toward the barium platinum paper. To his astonishment, it glowed! He tried the screen; it, too, fluoresced! He moved the tube well out of range of the cathode ray; still the light came through! He put his hand between the tube and the screen. The shadows of the bones and muscles of his hand showed on the screen! Then he put a book in front of the tube; still the light came through. Roentgen had discovered a new Ray! Now he would have to determine its nature and characteristics; and do it alone! Under the stimulus of the new discovery, he worked hard. None but his wife knew what was going on. She described him as eating very little, sleeping less, and being taciturn and grouchy during the days preceding December 28, 1895. On that day he handed a manuscript with the title "Eine neue Art von Strahlen," to the president of the Physical Medical Society of Wurzburg. Roentgenology was born!

The discovery was enthusiastically received all over the world. Today no doctor of medicine willingly practices without the aid of roentgen rays. The value which has accrued to the sick from the use of the ray in diagnosis and treatment is stupendous. Roentgenology closed the gap between clinical and anatomic diagnosis in disease of the lungs. It greatly narrowed that gap in the diagnosis of heart disease. But it did not close it! In order to be able to make a reasonably accurate clinical diagnosis of all types of heart disease, medicine required more help from the science of physics and it received this in the form of electrocardiography.

(To be continued)

Roster of Iowa Physicians in Military Service

As of January 25, 1945

Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) Capt., A.U.S.
Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.) Capt., A.U.S.

Adams County

Bain, C. L., Corning (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Willett, W. J., Carbon (APO 230, New York, N. Y.) Capt., A.U.S.

Allamakee County

Hogan, P. W., Waukon
Ivens, M. H., Waukon (Camp Shelby, La.)
Kiesau, M. F., Postville (Jefferson Barracks, Mo.) Major, A.U.S.
Rominger, C. R., Waukon (Camp Claiborne, La.) A.U.S.

Appanoose County

Cóndon, F. J., Centerville (Owensboro, Ky.) Major, U.S.P.H.S.
Edwards, R. R., Centerville (Richmond, Va.) Capt., A.U.S.
Huston, M. D., Centerville (Camp Bowie, Texas) Capt., A.U.S.

Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) Major, A.U.S.

Benton County

Koontz, L. W., Vinton (APO 7, San Francisco, Cal.) Capt., A.U.S.
Senfeld, Sidney, Belle Plaine

Black Hawk County

Bickley, D. W., Waterloo (APO New York, N. Y.) Capt., A.U.S.
Bickley, J. W., Waterloo (APO 956, San Francisco, Cal.) Capt., A.U.S.
Butts, J. H., Waterloo (Galveston, Texas) Comdr., U.S.N.R.
Cooper, C. N., Waterloo (Ottumwa, Iowa) Lt. Comdr., U.S.N.R.
Erickson, M. G., Cedar Falls (Camp Berkeley, Tex.) Capt., A.U.S.
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) Capt., A.U.S.
Henderson, L. J., Cedar Falls (APO 782, New York, N. Y.) Major, A.U.S.
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) Capt., A.U.S.
Ludwick, A. L., Waterloo (Ablene, Texas) Major, A.U.S.
Marquis, F. M., Waterloo (APO 17321, New York, N. Y.) Capt., A.U.S.
O'Keefe, P. T., Waterloo (APO 79, New York, N. Y.) Capt., A.U.S.
Paige, R. T., LaPorte City (Banana River, Fla.) Comdr., U.S.N.R.
Rohlf, E. L., Jr., Waterloo (APO 230, New York, N. Y.) Major, A.U.S.
Seibert, C. W., Waterloo (Colorado Springs, Colo.) Major, A.U.S.
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) Major, A.U.S.
Smith, R. I., Waterloo (Milwaukee, Wis.) Capt., A.U.S.
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) Major, A.U.S.
Trunnell, T. L., Waterloo (Parris Island, S. Car.) Lt. U.S.N.R.

Boone County

Brewster, E. S., Boone (APO 446, New York, N. Y.) Major, A.U.S.
Healy, M. J., Boone (Camp Chaffee, Ark.) Capt., A.U.S.
Shane, R. S., Pilot Mound (Des Moines, Ia.) Lt. Col., A.U.S.

Bremer County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Rathe, H. W., Waverly (APO 209, New York, N. Y.) Major, A.U.S.
Shaw, R. E., Waverly (Long Beach, Cal.) 1st Lt., A.U.S.

Buchanan County

Barton, J. C., Independence (APO 314, New York, N. Y.) Lt. Col., A.U.S.
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Leehey, P. J., Independence (APO 244, San Francisco, Cal.) Capt., A.U.S.
Loeck, J. F., Aurora (APO 9787, New York, N. Y.) Capt., A.U.S.

Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) Capt., A.U.S.
Brecher, P. W., Storm Lake (Camp Adair, Ore.) Lt. Col., A.U.S.
Hansen, R. R., Storm Lake (Parragut, Idaho) Lt., U.S.N.R.
Mailliard, R. E., Storm Lake (APO 254, New York, N. Y.) Lt. Col., A.U.S.
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) Capt., A.U.S.
Witte, H. J., Marathon (Fort Crook, Nebr.) Major, A.U.S.

Butler County

Andersen, B. V., Greene (Fleet PO, Seattle, Wash.) Lt., U.S.N.R.
James, R. A., Allison (Mare Island, Cal.)
Rofls, F. O., Parkersburg (Springfield, Mo.) 1st Lt., A.U.S.

Calhoun County

Grinley, A. V., Rockwell City (APO 350, New York, N. Y.) Capt., A.U.S.
Hobart, F. W., Lake City (Camp Grant, Ill.) Capt., A.U.S.
McVay, M. J., Lake City (Waco, Texas) Capt., A.U.S.

Peek, L. H., Lake City (Jefferson Barracks, Mo.) Capt., A.U.S.
Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
Weyer, J. J., Lohrville (APO 465, New York, N. Y.) Capt., A.U.S.

Carroll County

Anneberg, A. R., Carroll (Camp Berkeley, Texas) A.U.S.
Anneberg, W. A., Carroll (Ft. Dix, N. J.) Capt., A.U.S.
Cochran, J. L., Carroll (Gulport, Miss.)
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Freedland, Maurice, Coon Rapids
Morrison, J. R., Carroll (Ft. Dix, N. J.) Capt., A.U.S.
Morrison, R. B., Carroll (APO 634, New York, N. Y.) Capt., A.U.S.
Pascoe, P. L., Carroll (Bowman Field, Ky.) Capt., A.U.S.
Scannell, R. C., Carroll (Denver, Colo.) Capt., A.U.S.
Tindall, R. N., Coon Rapids (Hines, Ill.) Major, A.U.S.
Wyatt, M. R., Manning (De Ridder, La.) Capt., A.U.S.

Cass County

Egbert, D. S., Atlantic (APO 218, New York, N. Y.) Major, A.U.S.
Needles, R. M., Atlantic (APO 131, New York, N. Y.) Capt., A.U.S.
Petersen, M. T., Atlantic (Topeka, Kan.) Capt., A.U.S.
Schiff, Joseph, Anita (Walla Walla, Wash.) 1st Lt., A.U.S.

Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.) Lt., U.S.N.R.
Mosher, M. L., West Branch (APO 560, New York, N. Y.) Capt., A.U.S.
O'Neal, H. E., Tipton (Camp Maxey, Texas) Lt. Col., A.U.S.

Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.) Capt., A.U.S.
Egloff, W. C., Mason City (APO 17130, New York, N. Y.) Capt., A.U.S.
Flickinger, R. R., Mason City (Memphis, Tenn.) Capt., A.U.S.
Hale, A. E., Dougherty (Atlanta, Ga.) Capt., A.U.S.
Harris, R. H., Mason City (Dyersburg, Tenn.) Capt., A.U.S.
Harrison, G. E., Mason City (APO 365, New York, N. Y.) Col., A.U.S.
Houlahan, J. E., Mason City (APO 838, New Orleans, La.) Capt., A.U.S.
Lannon, J. W., Clear Lake (APO 230, New York, N. Y.) Capt., A.U.S.
Long, D. L., Mason City (APO 520, New York, N. Y.) Capt., A.U.S.
Morgan, P. W., Mason City (Camp Butler, N. Car.) Capt., A.U.S.
Marinos, H. G., Mason City (Denver, Colo.) Capt., A.U.S.
Sternhill, Irving, Mason City (Ayer, Mass.) Capt., A.U.S.

Cherokee County

Bullock, G. D., Washta (APO 17583, New York, N. Y.) Capt., A.U.S.
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) Major, A.U.S.
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) Capt., A.U.S.

Chickasaw County

Caulfield, J. D., New Hampton (APO 178, New York, N. Y.) Major, A.U.S.
Murphey, A. L., Fredericksburg (Hot Springs, Ark.) Capt., A.U.S.
O'Connor, E. C., New Hampton (Redmond, Ore.) Capt., A.U.S.
Richmond, P. C., New Hampton (APO 88, New York, N. Y.) Major, A.U.S.

Clarke County

Armitage, G. I., Murray (Carlisle Barracks, Pa.) 1st Lt., A.U.S.

Clay County

Edington, F. D., Spencer (APO 629, New York, N. Y.) Col., A.U.S.
Jones, C. C., Spencer (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
King, D. H., Spencer (Peterson Field, Colo.) Capt., A.U.S.

Clayton County

Andersen, H. M., Strawberry Point (Springfield, Mo.) Capt., A.U.S.
Glesne, O. G., Monona (Knoxville, Iowa) Capt., A.U.S.
Rhomburg, E. B., Guttenberg (APO 584, New York, N. Y.) Capt., A.U.S.

Clinton County

Amesbury, H. A., Clinton (Vancouver, Wash.) Capt., A.U.S.
Burke, J. C., Clinton (Great Bend, Kan.) A.U.S.
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) Capt., A.U.S.
Hill, D. E., Clinton (APO 9787, New York, N. Y.) Capt., A.U.S.
King, R. C., Clinton (APO 403, New York, N. Y.) Capt., A.U.S.
Lenaghan, R. T., Clinton (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Norment, J. E., Clinton (Washington, D. C.)

.....Lt. Comdr., U.S.N.R.
 Riedesel, E. V., Wheatland (Fort Douglas, Utah)
 Seanlan, G. C., DeWitt (Carlisle Barracks, Pa.)...Capt., A.U.S.
 Snyder, D. C., De Witt
 Spiegel, I. J., Clinton (Galesburg, Ill.).....Capt., A.U.S.
 Van Epps, E. F., Clinton (APO 921, New York,
 N. Y.).....Capt., A.U.S.
 Waggoner, C. V., Clinton (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Wells, L. L., Clinton (APO 562, New York, N. Y.)...Capt., A.U.S.

Crawford County

Fee, C. H., Denison (APO 696, New York, N. Y.)...Major, A.U.S.
 Grau, A. H., Denison, (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Maire, E. J., Vail (APO 18085, New York, N. Y.)...Capt., A.U.S.
 Wetrich, M. F., Manilla (APO 986, Seattle, Wash.)...Capt., A.U.S.

Dallas-Guthrie Counties

Butterfield, E. T., Dallas Center (Fort Sheridan,
 Ill.).....1st Lt., A.U.S.
 Byrnes, A. W., Guthrie Center (Fort Custer, Mich.)...Major, A.U.S.
 Fail, C. S., Adel (Fleet PO, San Francisco, Cal.)...Lt. U.S.N.R.
 Margolin, J. M., Perry (APO 5816, New York,
 N. Y.).....Capt., A.U.S.
 McGilvra, R. I., Guthrie Center (Ames, Iowa).....Lt., U.S.N.R.
 Mullmann, A. J., Adel (APO 17558, San Francisco, Cal.)...Capt., A.U.S.
 Nicoll, C. A., Panora (APO 349, New York, N. Y.)...Major, A.U.S.
 Osborn, C. R., Dexter (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Todd, D. W., Guthrie Center (APO 2, New York,
 N. Y.).....Capt., A.U.S.
 Wilke, F. A., Woodward.....Capt., A.U.S.

Davis County

Fenton, C. D., Bloomfield (APO 5253, New York,
 N. Y.).....Capt., A.U.S.
 Gilfillan, G. W., Bloomfield (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Decatur County

Gamet, E. E., Lamoni (APO New York, N. Y.)...Capt., A.U.S.

Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York,
 N. Y.).....Capt., A.U.S.
 Clark, R. E., Manchester (APO 419, New York, N. Y.)
Capt., A.U.S.

Des Moines County

Eigenfeld, M. L., Burlington (Cleveland, Ohio)...1st Lt., A.U.S.
 Heitzman, P. O., Burlington (Fort Lewis, Wash.)...Capt., A.U.S.
 Jenkins, G. D., Burlington (West Point, N. Y.)...Lt. Col., A.U.S.
 Lohmann, C. J., Burlington (APO 708, San Francisco, Cal.)...Major, A.U.S.
 McKitterick, J. C., Burlington (Hamilton,
 R. I.).....Comdr., U.S.N.R.
 Moerke, R. F., Burlington (APO 565, San Francisco,
 Cal.).....Capt., A.U.S.
 Sage, E. C., Burlington (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Dickinson County

Buchanan, J. J., Milford (Santa Ana, Cal.).....Lt., U.S.N.R.
 Henning, G. G., Milford (APO 96, San Francisco,
 Cal.).....Major, A.U.S.
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.)...Capt., A.U.S.
 Rodawig, D. F., Spirit Lake (Hot Springs, Ark.)...Major, A.U.S.

Dubuque County

Anderson, E. E., Dubuque (Bradley Field, Conn.)...Capt., A.U.S.
 Beddoes, M. G., Cascade (APO 709, San Francisco,
 Cal.).....Capt., A.U.S.
 Conzett, D. C., Dubuque (APO 887, New York,
 N. Y.).....Lt. Col., A.U.S.
 Cunningham, J. C., Dubuque (Fairfield, Ohio)...Capt., A.U.S.
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.)
Major, A.U.S.
 Entringer, A. J., Dubuque (APO 41, San Francisco,
 Cal.).....Capt., A.U.S.
 Hall, C. B., Dubuque (Camp Shelby, Miss.)...Capt., A.U.S.
 Knoll, A. H., Dubuque (San Francisco, Cal.)...Major, A.U.S.
 Langford, W. R., Epworth (Miami Beach, Fla.)...Capt., A.U.S.
 Lavery, H. B., Dubuque (Washington, D. C.)...Lt. Col., A.U.S.
 Leik, D. W., Dubuque (Wichita Falls, Tex.)...Capt., A.U.S.
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.)...Capt., A.U.S.
 Olson, P. F., Dubuque (Mare Island, Cal.)...Lt. Comdr., U.S.N.R.
 Painter, R. C., Dubuque (Salt Lake City, Utah)...Lt., U.S.N.R.
 Paulus, J. W., Dubuque (APO 115, New York,
 N. Y.).....Capt., A.U.S.
 Plankers, A. G., Dubuque (APO 363 New York,
 N. Y.).....Major, A.U.S.
 Quinn, E. P., Dubuque (Brentwood, L. I.)...Major, A.U.S.
 Scharle, Theodore, Dubuque (APO 17570, New York,
 N. Y.).....Capt., A.U.S.
 Schueller, C. J., Dubuque (APO 758, New York,
 N. Y.).....1st Lt., A.U.S.
 Sharpe, D. C., Dubuque (APO 5541, New York,
 N. Y.).....Major, A.U.S.
 Smith, C. W., Dubuque (Shoemaker, Cal.)...Lt., U.S.N.R.
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.)...Lt. Col., A.U.S.
 Straub, J. J., Dubuque (Corpus Christi, Texas)...Lt., U.S.N.R.
 Ward, D. F., Dubuque (Great Lakes, Ill.)...Lt. Comdr., U.S.N.R.

Emmet County

Clark, J. P., Estherville (APO New York, N. Y.)...Capt., A.U.S.
 Collins, L. E., Estherville (Camp Dodge, Iowa)...A.U.S.
 Miller, O. H., Estherville (Seattle, Wash.)...Lt. Comdr., U.S.N.R.

Fayette County

Gallagher, J. P., Oelwein (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Henderson, W. B., Oelwein (St. Louis, Mo.)...Lt. Col., A.U.S.
 Szlach, J. F., Oelwein
 Walsh, W. E., Hawkeye (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Floyd County

Baltzell, W. C., Charles City (APO 2, New York,
 N. Y.).....Major, A.U.S.
 Flater, N. C., Floyd (APO 350, New York, N. Y.)...Capt., A.U.S.
 Knight, R. A., Rockford (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Mackie, D. G., Charles City (APO 493, New York,
 N. Y.).....Capt., A.U.S.
 Miner, J. B., Jr., Charles City (San Diego, Cal.)...Lt., U.S.N.R.
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.)
Capt., A.U.S.

Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) 1st Lt., A.U.S.
 Hedgecock, L. E., Hampton (Camp Lejeune,
 N. Car.).....Lt. Comdr., U.S.N.R.
 Randall, W. L., Hampton (Oceanside, Cal.)...Lt., U.S.N.R.
 Walton, S. G., Hampton (APO New York, N. Y.)...Capt., A.U.S.

Fremont County

Kerr, W. H., Hamburg (Camp Phillips, Kan.)...Capt., A.U.S.
 Marrs, W. D., Tabor (Ardmore, Okla.)...Capt., A.U.S.
 Powell, R. A., Farragut (Great Lakes, Ill.)...Lt. (jg), U.S.N.R.
 Wanamaker, A. R., Hamburg (APO 939, Seattle,
 Wash.).....Capt., A.U.S.

Greene County

Cartwright, F. P., Grand Junction (APO 511, New York,
 N. Y.).....Capt., A.U.S.
 Castles, W. A., Rippey (APO 958, San Francisco, Cal.)
Major, A.U.S.
 Hanson, L. C., Jefferson (APO 728, New York, N. Y.)
Capt., A.U.S.
 Jongewaard, A. J., Jefferson (Fleet PO, San
 Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Limburg, J. I., Jr., Jefferson (APO 503, San Francisco,
 Cal.).....Major, A.U.S.
 Lohr, P. E., Churdan (Hastings, Nebr.)...Lt., U.S.N.R.

Grundy County

Cullison, R. M., Dike (Fort Howard, Md.)...Major, A.U.S.
 Rose, J. E., Grundy Center (Fleet PO, New York,
 N. Y.).....Lt. Comdr., U.S.N.R.

Hamilton County

*Buxton O. C., Webster City (APO 9921, New York,
 N. Y.).....1st Lt., A.U.S.
 Howar, B. F., Jewell (APO 514, New York, N. Y.)...Major, A.U.S.
 James, D. W., Kamrar (APO 782, New York, N. Y.)
Capt., A.U.S.
 Lewis, W. B., Webster City (APO 383, New York,
 N. Y.).....Major, A.U.S.
 Mooney, F. P., Jewell (London, England)...Capt., R.A.M.C.
 Paschal, G. A., Williams (Camp Berkeley, Texas)...Capt., A.U.S.
 Patterson, R. A., Webster City (San Diego,
 Cal.).....Lt. Comdr., U.S.N.R.
 Ptaeck, J. L., Webster City (APO 12845 G, New York,
 N. Y.).....Capt., A.U.S.
 Schrader, M. A., Webster City (Topeka, Kan.)...1st Lt., A.U.S.
 Thompson, E. D., Webster City (Biloxi, Miss.)...Lt., A.U.S.

Hancock-Winnebag Counties

Dolmage, G. H., Buffalo Center (Denver, Colo.)...Capt., A.U.S.
 Dulmes, A. H., Klemme (APO 782, New York,
 N. Y.).....Capt., A.U.S.
 Eller, L. W., Kanawha (APO 302, New York,
 N. Y.).....Capt., A.U.S.
 Irish, T. J., Forest City (Fleet PO, San Francisco, Cal.)
Lt. Comdr., U.S.N.R.
 Shaw, D. F., Britt (Delhart, Tex.)...Major, A.U.S.
 Thomas, C. W., Forest City (Camp Crowder, Mo.)...Capt., A.U.S.

Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.)...Lt., U.S.N.R.
 Houlihan, F. W., Ackley (APO 860, New York,
 N. Y.).....1st Lt., A.U.S.
 Jansoni, J. W., Eldora (APO 4834, New York,
 N. Y.).....Capt., A.U.S.
 Johnson, R. J., Iowa Falls (APO 514, New York,
 N. Y.).....Capt., A.U.S.
 Johnson, W. A., Alden (Orlando, Fla.)...Capt., A.U.S.
 Shurts, J. J., Eldora (Camp Roberts, Cal.)...1st Lt., A.U.S.
 Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Todd, V. S., Eldora (APO 9641, San Francisco, Cal.)...Capt., A.U.S.

Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Ord, Cal.)...Capt., A.U.S.
 Burbridge, G. E., Logan (APO 511, New York,
 N. Y.).....Major, A.U.S.
 Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.)...Capt., A.U.S.
 Heise, C. A., Jr., Missouri Valley (Fleet PO, San
 Francisco, Cal.)...Lt., U.S.N.R.
 Tamisiea, F. X., Missouri Valley (APO 562, New York,
 N. Y.).....Capt., A.U.S.

Henry County

Brown, W. B., Mount Pleasant (APO 511, New York,
 N. Y.).....Major, A.U.S.

Dwankowski, Carl, Mt. Pleasant (APO 511, New York, N. Y.).....Capt., A.U.S.
 Gloeckler, B. B., Mount Pleasant (APO 9768, New York, N. Y.).....Capt., A.U.S.
 Hartley, B. D., Mount Pleasant (APO 17130, New York, N. Y.).....Capt., A.U.S.
 Megorden, W. H., Mount Pleasant (Ogden, Utah).....Capt., A.U.S.
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.).....Major, A.U.S.

Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Nierling, P. A., Cresco (APO 43, San Francisco, Cal.).....Capt., A.U.S.

Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.).....Capt., A.U.S.
 Coddington, J. H., Humboldt (Oklahoma City, Okla.).....Capt., A.U.S.

Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.).....Capt., A.U.S.
 Martin, J. W., Holstein (Seymour, Ind.).....Capt., A.U.S.

Iowa County

Geiger, U. S., North English (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 McDaniel, J. D., Marengo (Fort Ord, Cal.).....Capt., A.U.S.
 Miller, D. F., Williamsburg (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.

Jackson County

Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.).....Major, A.U.S.

Jasper County

Doake, Clarke, Newton.....1st Lt., A.U.S.
 Minkel, R. M., Newton (APO New York, N. Y.).....Major, A.U.S.
 Ritchey, S. J., Newton.....Lt. Col., A.U.S.

Jefferson County

Castell, J. W., Fairfield (APO 9907, New York, N. Y.).....Capt., A.U.S.
 Frey, Harry, Fairfield (Norfolk, Va.).....Lt. Comdr., U.S.N.R.
 Gittler, Ludwig, Fairfield.....Lt. Col., A.U.S.
 Graber, H. E., Fairfield Galesburg, Ill.....Major, A.U.S.
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

Johnson County

Agnew, J. W., Iowa City (APO 17604, New York, N. Y.).....Capt., A.U.S.
 Albert, S. M., Iowa City (Camp White, Ore.).....1st Lt., A.U.S.
 Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.
 Anderson, E. N., Iowa City (APO 647, New York, N. Y.).....Major, A.U.S.
 Boyd, E. J., Iowa City (APO 140, New York, N. Y.).....Capt., A.U.S.
 Brinkhaus, K. M., Iowa City (APO 4672, San Francisco, Cal.).....Lt. Col., A.U.S.
 Bunge, R. G., Iowa City (Biloxi, Miss.).....1st Lt., A.U.S.
 Callahan, G. D., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Coburn, F. E., Iowa City (Toronto, Canada).....Capt., R.C.A.
 Cooper, W. K., Iowa City (Mitchell Field, N. Y.).....Capt., A.U.S.
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.).....Capt., A.U.S.
 Diddle, A. W., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.

Dorner, R. A., Iowa City (APO 534, New York, N. Y.).....Capt., A.U.S.
 Elmquist, H. S., Iowa City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 Emmons, M. B., Iowa City (Abilene, Texas).....Capt., A.U.S.
 Flax, Ellis, Iowa City (APO 5833, New York, N. Y.).....1st Lt., A.U.S.
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.
 Fourn, A. S., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.

Francis, N. L., Iowa City (Annapolis, Md.).....Lt. (jg), U.S.N.R.
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.
 Garlinghouse, R. O., Iowa City (APO 302, New York, N. Y.).....Major, A.U.S.

Hardin, R. C., Iowa City (APO 508, New York, N. Y.).....Major, A.U.S.
 Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.
 Hessin, A. L., Iowa City (APO 452, New York, N. Y.).....Capt., A.U.S.

Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 January, L. E., Iowa City (Pyote, Texas).....Major, A.U.S.
 Kanealy, J. F., Iowa City (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.

Keislar, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.
 Laubscher, J. H., Iowa City (Ft. Benning, Ga.).....1st Lt., A.U.S.
 Longwell, F. H., Iowa City (APO 515, New York, N. Y.).....Major, A.U.S.

Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.
 Nagffy, S. F., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.
 Newman, R. W., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.

Parkin, G. L., Iowa City (Mountain Home, Idaho).....1st Lt., A.U.S.
 Paulus, E. W., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.
 Petersen, V. W., Iowa City (APO 689, New York, N. Y.).....Col., A.U.S.

Sells, R. L., Jr., Iowa City (Palmdale, Cal.).....Capt., A.U.S.
 Smith, H. F., Iowa City (New York, N. Y.).....Lt. Comdr., U.S.N.R.
 Springer, E. W., Iowa City (APO 622, Miami, Fla.).....1st Lt., A.U.S.
 Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.
 Staggs, W. A., Iowa City (Camp Robinson, Ark.).....Major, A.U.S.
 Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.

Stump, R. B., Iowa City (Denver, Colo.).....Capt., A.U.S.
 Titus, E. L., Iowa City (Belmont, Mass.).....Col., A.U.S.
 Trapasso, T. J., Iowa City (APO 520, New York, N. Y.).....Capt., A.U.S.
 Trussell, R. E., Iowa City (APO 5467, San Francisco, Cal.).....Capt., A.U.S.
 Vest, W. M., Iowa City (Menlo Park, Cal.).....Capt., A.U.S.
 Ward, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Weatherly, H. E., Iowa City (APO 72, San Francisco, Cal.).....Capt., A.U.S.
 Wollmann, W. W., Iowa City (Staunton, Va.).....1st Lt., A.U.S.
 Ziffren, S. E., Iowa City (Springfield Mo.).....1st Lt., A.U.S.

Junior Members

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.
 Black, N. M., Iowa City (McChord Field, Wash.).....1st Lt., A.U.S.
 Blair, J. D., Iowa City (APO San Francisco, Cal.).....Major, A.U.S.
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.
 Brintnall, E. S., Iowa City (Colorado Springs, Colo.).....1st Lt., A.U.S.
 Burr, S. P., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.
 Carney, R. G., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Connole, J. F., Iowa City (Camp Bowie, Texas).....1st Lt., A.U.S.
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.).....1st Lt., A.U.S.
 Decker, C. E., Iowa City (Oklahoma City, Okla.).....1st Lt., A.U.S.
 Donnelly, B. A., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.
 Ehrenhaft, J. L., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.
 Englerth, F. L., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.

Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.
 Glassman, A. L., Iowa City (Palm Springs, Cal.).....1st Lt., A.U.S.
 Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.
 Harms, G. E., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Hendricks, A. B., Iowa City (Klamath Falls, Ore.).....Lt., U.S.N.
 Hovis, Wm., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.
 Jacobs, C. A., Iowa City (APO New York, N. Y.).....Major, A.U.S.
 Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.).....1st Lt., A.U.S.
 Keil, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.
 Kelberg, M. R., Iowa City (Alameda, Cal.).....Lt., U.S.N.R.
 Keleher, M. F., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.
 Keohen, G. F., Iowa City (Camp Grant, Ill.).....Capt., A.U.S.
 Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.
 Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.
 McCann, J. P., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 McQuiston, W. O., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.

Moen, B. H., Iowa City
 Moon, R. E., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.
 Odell, Lester, Iowa City (Pensacola, Fla.).....Lt. (jg), U.S.N.R.
 Phillips, R. M., Iowa City (San Francisco, Cal.).....1st Lt., A.U.S.

Pulliam, R. L., Iowa City (APO 350, New York, N. Y.).....Major, A.U.S.
 Randall, C. G., Iowa City
 Randall, R. G., Iowa City (Waterloo, Iowa).....Capt., A.U.S.

Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.
 Russin, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.
 Saar, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.

Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.
 Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Shand, J. A., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.

Shapiro, S. I., Iowa City
 Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.
 Skewis, J. E., Iowa City (Corona, Cal.).....Lt., U.S.N.R.
 Skouge, O. T., Iowa City

Towle, R. A., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.
 Waters, V. G., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.

Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.
 Williams, L. A., Iowa City (Treasure Island, Cal.).....1st Lt., A.U.S.
 Willumsen, H. C., Iowa City (Denver, Colo.).....Capt., A.U.S.
 Wilkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.
 Yetter, W. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
 Zahrt, N. E., Iowa City (Keesler Field, Miss.).....Capt., A.U.S.
 Zimmerman, H. A., Iowa City (Santa Ana, Cal.).....1st Lt., A.U.S.

Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.).....Capt., A.U.S.
 Doyle, J. L., Sigourney (Camp Barkeley, Texas).....A.U.S.
 Engelmann, A. T., What Cheer (Camp Polk, La.).....Capt., A.U.S.
 Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.
 Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.
 Wiley, Dudley, Hedrick (Mason City, Wash.)

Kossuth County

Clapsaddle, D. W., Burt (Denver, Colo.).....Capt., A.U.S.
 Corbin, R. L., Luverne (Des Moines, Iowa).....Capt., A.U.S.
 Kenefick, J. N., Alcona (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 Williams, R. L., Lakota (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

Lee County

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.
 Cleary, H. G., Fort Madison (Ft. Benning, Ga.) Capt., A.U.S.
 Cooper, R. E., Keokuk (APO 565, San Francisco, Cal.) Capt., A.U.S.
 Johnstone, A. A., Keokuk (APO 942, Seattle, Wash.) Col., A.U.S.
 McKee, T. L., Keokuk (Miami Beach, Fla.) Major, A.U.S.
 Humphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) Major, A.U.S.
 Rankin, J. R., Keokuk (Memphis, Tenn.) Lt., U.S.N.R.
 Richmond, A. C., Fort Madison (Treasure Island, Cal.) Lt. Comdr., U.S.N.R.
 Steffey, F. L., Keokuk (Fort Snelling, Minn.) Capt., A.U.S.
 Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.) Capt., A.U.S.
 Younan, Thomas, Ft. Madison (APO 464, New York, N. Y.) Capt., A.U.S.

Linn County

Andre, G. R., Lisbon (APO 90, Ft. Dix, N. J.) Lt. Col., A.U.S.
 Berney, P. W., Cedar Rapids (APO 207, New York, N. Y.) Capt., A.U.S.
 Block, W. M., Cedar Rapids (APO 926, San Francisco, Cal.) Capt., A.U.S.
 Chapman, R. M., Cedar Rapids (Chicago, Ill.) Capt., A.U.S.
 Coughlan, V. H., Coggon (Fort Snelling, Minn.) A.U.S.
 Courter, W. O., Springville (APO 464, New York, N. Y.) Major, A.U.S.
 Downing, J. S., Cedar Rapids (APO 565, San Francisco, Cal.) Major, A.U.S.
 Dunn, F. C., Cedar Rapids (Winfield, Kan.) Major, A.U.S.
 Gearhart, Merriam, Springville (APO 204, New York, N. Y.) Major, A.U.S.
 Gerstman, Herbert, Marion (Camp Van Dorn, Miss.) Capt., A.U.S.
 Halpin, L. J., Cedar Rapids (APO 17928, San Francisco, Cal.) Major, A.U.S.
 Hecker, J. T., Cedar Rapids (Camp Bowie, Texas) A.U.S.
 Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.) Lt. Col., A.U.S.
 Keith, J. J., Marion (Menlo Park, Cal.) Major, A.U.S.
 Kleck, E. G., Cedar Rapids (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Kruckenberg, W. G., Mount Vernon (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Leedham, C. L., Springville (Camp Campbell, Ky.) Col., A.U.S.
 Locher, R. C., Cedar Rapids (Camp Gruber, Okla.) Major, A.U.S.
 MacDougal, R. F., Cedar Rapids (APO 9057, New York, N. Y.) Capt., A.U.S.
 McConkie, E. B., Cedar Rapids (Hines, Ill.) Major, A.U.S.
 McQuiston, J. S., Cedar Rapids (Fort Warren, Wyo.) Lt. Col., A.U.S.
 Meffert, C. B., Cedar Rapids (APO 403, New York, N. Y.) Lt. Col., A.U.S.
 Murray, E. S., Cedar Rapids (APO 787, New York, N. Y.) Major, A.U.S.
 Netolicky, R. Y., Cedar Rapids (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.) 1st Lt., A.U.S.
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.) Major, A.U.S.
 Parke, John, Cedar Rapids Major, A.U.S.
 Proctor, R. D., Cedar Rapids (Corpus Christi, Texas) Comdr., U.S.N.R.
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) Major, A.U.S.
 Rienits, J. H., Cedar Rapids (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Sedlacek, L. B., Cedar Rapids (APO 244, San Francisco, Cal.) Lt. Col., A.U.S.
 Smrha, J. A., Cedar Rapids (APO 922, San Francisco, Cal.) Capt., A.U.S.
 Stansbury, J. R., Cedar Rapids (Fort Lewis, Wash.) Capt., A.U.S.
 Stark, C. H., Cedar Rapids (Denver, Colo.) Capt., A.U.S.
 Sulek, A. E., Cedar Rapids (APO 244, San Francisco, Cal.) Major, A.U.S.
 Woodhouse, K. W., Cedar Rapids (APO 519, New York, N. Y.) Lt. Col., A.U.S.
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) Major, A.U.S.
 Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.) Lt. Comdr., U.S.N.

Louisia County

DeYarman, K. T., Morning Sun (San Antonio, Texas) Capt., A.U.S.
 Tandy, R. W., Morning Sun (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Lucas County

Lister, K. E., Chariton (Fort Snelling, Minn.) A.U.S.

Lyon County

Cook, S. H., Rock Rapids (Memphis, Tenn.) Major, A.U.S.
 Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Oflag 64, Germany) Capt., A.U.S.
 Moriarty, J. F., Rock Rapids (APO 464, New York, N. Y.) Capt., A.U.S.

Madison County

Boden, H. N., Truro (Fresno, Cal.) Capt., A.U.S.
 Chesnut, P. F., Winterset (Camp Gruber, Okla.) Capt., A.U.S.
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) Capt., A.U.S.
 Wicks, R. L., Winterset (APO 637, New York, N. Y.) Lt. Col., A.U.S.

Mahaska County

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.) Major, A.U.S.
 Bos, H. C., Oskaloosa Major, A.U.S.
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Clark, G. H., Oskaloosa (Mare Island, Cal.) Lt. Comdr., U.S.N.R.
 Greenlee, M. R., Oskaloosa (Port Hueneme, Cal.) Lt. Comdr., U.S.N.R.
 Lemon, K. M., Oskaloosa (APO 637, New York, N. Y.) Capt., A.U.S.
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.) Capt., A.U.S.

Marion County

Elliott, V. J., Knoxville (APO 558, New York, N. Y.) Major, A.U.S.
 Mater, D. A., Knoxville (Lincoln, Neb.) Major, A.U.S.
 Ralston, F. P., Knoxville (Indio, Cal.) Capt., A.U.S.
 Schiek, C. M., Knoxville Lt. Comdr., U.S.N.R.
 Schroeder, M. C., Pella (Camp Livingston, La.) Capt., A.U.S.
 Williams, D. B., Knoxville Capt., A.U.S.

Marshall County

Carpenter, R. C., Marshalltown (APO 673 New York, N. Y.) Capt., A.U.S.
 Marble, E. J., Marshalltown (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Marble, W. P., Marshalltown (Colorado Springs, Colo.) Major, A.U.S.
 Meyer, M. G., Marshalltown (APO 513, New York, N. Y.) Major, A.U.S.
 Noonan, J. J., Marshalltown (Fort Jackson, S. Car.) Lt. Col., A.U.S.
 Phelps, R. E., State Center (APO 7, San Francisco, Cal.) Capt., A.U.S.
 Sinning, J. E., Melbourne (Camp Haan, Cal.) Capt., A.U.S.
 Smith, E. M., State Center (APO 520, New York, N. Y.) Lt. Col., A.U.S.
 Stegman, J. J., Marshalltown (APO 520, New York, N. Y.) Major, A.U.S.
 Wells, R. C., Marshalltown (Gowen Field, Idaho) Capt., A.U.S.
 Wolfe, O. D., Marshalltown (APO 937, Seattle Wash.) Capt., A.U.S.
 Wolfe, R. M., Marshalltown (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.

Mills County

DeYoung, W. A., Glenwood (APO 228, New York, N. Y.) Capt., A.U.S.
 Kufert, J. H., Glenwood (St. Cloud, Minn.) Major, A.U.S.
 Magaret, E. C., Glenwood (APO 973, Minneapolis, Minn.) Capt., A.U.S.
 Shonka, T. E., Malvern (APO 403, New York, N. Y.) Capt., A.U.S.

Mitchell County

Culbertson, R. A., St. Ansgar (APO 17928, San Francisco, Cal.) Lt. Col., A.U.S.
 Moore, E. E., Osage (APO 591, New York, N. Y.) Major, A.U.S.
 Owen, W. E., Osage (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
 Walker, T. G., Riceville (Fleet PO, New York, N. Y.) Lt., U.S.N.R.

Monona County

Almer, L. E., Moorhead (Fort Knox, Ky.) Capt., A.U.S.
 Anderson, S. N., Onawa (Great Lakes, Ill.) Lt., U.S.N.R.
 Ganzhorn, H. L., Mapleton (APO 72, San Francisco, Cal.) Capt., A.U.S.
 Gaukel, L. A., Onawa (Fort Riley, Kan.) Capt., A.U.S.
 Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
 Stauch, M. O., Whiting (Fort Lewis, Wash.) Major, A.U.S.
 Wainwright, M. T., Mapleton (APO 17508, New York, N. Y.) Capt., A.U.S.
 Wolpert, P. L., Onawa (Camp Atterbury, Ind.) Capt., A.U.S.

Monroe County

Gilliland, C. H., Albia (Quonset Point, R. I.) Lt., U.S.N.R.
 Heimann, V. R., Albia (Camp Maxey, Texas) Capt., A.U.S.
 Richter, H. J., Albia (Waco, Texas) Major, A.U.S.
 Smith, R. A., Albia (New Cumberland, Pa.) Capt., A.U.S.

Montgomery County

Bastron, H. C., Red Oak (APO 951, San Francisco, Cal.) Major, A.U.S.
 Hansen, F. A., Red Oak (Clarksville, Ark.) Lt., U.S.N.R.
 Nelson, C. C., Red Oak (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Panzer, E. J. C., Stanton (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
 Rost, G. S., Red Oak (Chickasha, Okla.) Capt., A.U.S.
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) Capt., A.U.S.

Muscatine County

Ady, A. E., West Liberty (Pensacola, Fla.) Comdr., U.S.N.R.
 Ashalter, R. W., Muscatine (Fort Meade, Md.) 1st Lt., A.U.S.
 Carlson, E. H., Muscatine (Milwaukee, Wis.) Capt., A.U.S.
 Goad, R. R., Muscatine (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) Major, A.U.S.
 Lindley, E. L., Muscatine (APO 6, San Francisco, Cal.) Capt., A.U.S.
 Muhs, E. O., Muscatine (APO 573, New York, N. Y.) Major, A.U.S.
 Norem, Walter, Muscatine (APO, Miami, Fla.) Capt., A.U.S.

Robertson, T. A., West Liberty (APO 119, New York, N. Y.).....	Capt., A.U.S.
Sywassink, G. A., Muscatine (APO 488-"Y" Forces, New York, N. Y.).....	Lt. Col., A.U.S.
Whitmer, L. H., Wilton Junction (Fort Sill, Okla.).....	Lt. Col., A.U.S.
O'Brien County	
Getty, E. B., Primghar (APO 176, New York, N. Y.).....	Capt., A.U.S.
Hayne, W. W., Paulina (APO 638, New York, N. Y.).....	Capt., A.U.S.
Moen, S. T., Hartley (APO 689, New York, N. Y.).....	Major, A.U.S.
Myers, K. W., Sheldon (Watertown, S. Dak.).....	1st Lt., A.U.S.
Osceola County	
Kuntz, G. S., Sibley (APO 34, New York, N. Y.).....	Capt., A.U.S.
Page County	
Barnes, C. A., Shenandoah (Fort Bragg, N. C.).....	Capt., A.U.S.
Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.).....	Capt., A.U.S.
Bostingham, E. N., Clarinda (Fort Ord, Cal.).....	Major, A.U.S.
Bunch, H. McK., Shenandoah (San Diego, Cal.).....	Lt. Comdr., U.S.N.R.
Burdick, F. D., Shenandoah.....	Capt., A.U.S.
Burnett, F. K., Clarinda (Denver, Colo.).....	Major, A.U.S.
Rausch, G. R., Clarinda (Sioux City, Iowa).....	Capt., A.U.S.
Savage, L. W., Shenandoah (Fort Meade, Md.).....	1st Lt., A.U.S.
Palo Alto County	
Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.).....	Lt., U.S.N.R.
Plymouth County	
Bowers, C. V., LeMars (APO New York, N. Y.).....	1st Lt., A.U.S.
Fisch, R. J., LeMars (Denver, Colo.).....	Capt., A.U.S.
Foss, R. H., Remsen (Salt Lake City, Utah).....	Capt., A.U.S.
Wolfson, Harold, Kingsley (Fort Lewis, Wash.).....	Capt., A.U.S.
Pocahontas County	
Blair, F. L., Fonda (San Antonio, Texas).....	Lt., U.S.N.R.
Herriek, T. G., Gilmore City (APO 9875, New York, N. Y.).....	Capt., A.U.S.
Larson, J. B., Laurens (APO 720, San Francisco, Cal.).....	Capt., A.U.S.
Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.).....	Capt., A.U.S.
Patterson, A. W., Fonda (Des Moines, Iowa).....	Capt., A.U.S.
Polk County	
Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.).....	Lt. Comdr., U.S.N.R.
Anderson, N. B., Des Moines (APO 667, New York, N. Y.).....	Lt. Col., A.U.S.
Angell, C. A., Des Moines (Ft. Bragg, N. Car.).....	Capt., A.U.S.
Anspach, R. S., Mitchellville (APO 528, New York, N. Y.).....	Lt. Col., A.U.S.
Barner, J. L., Des Moines (Atlanta, Ga.).....	Major, A.U.S.
Barnes, B. C., Des Moines (Ogden, Utah).....	Major, A.U.S.
Bates, M. T., Des Moines (Corona, Cal.).....	Lt. Comdr., U.S.N.R.
Bender, H. R., Des Moines (Carlisle Barracks, Penn.).....	1st Lt., A.U.S.
Bond, T. A., Des Moines (Shoemaker, Cal.).....	Lt., U.S.N.R.
Bone, H. C., Des Moines (Arlington, Cal.).....	Major, A.U.S.
Brown, A. W., Des Moines (APO 5934, New York, N. Y.).....	Capt., A.U.S.
Bruner, J. M., Des Moines (Camp Barkeley, Texas).....	Major, A.U.S.
Bruns, P. D., Des Moines (Carlisle Barracks, Penn.).....	1st Lt., A.U.S.
†Burgeson, F. M., Des Moines (Gefangenennummer 1480, Lager-Bezeichnung: Kriegsgef-Offizierlager XXI B, Deutschland [Allemagne]).....	Capt., A.U.S.
Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada).....	Flight Lt., R.C.A.F.
Chambers, J. W., Des Moines (APO 648, New York, N. Y.).....	Capt., A.U.S.
Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.).....	Lt., U.S.N.R.
Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.).....	Capt., A.U.S.
Connell, J. R., Des Moines (Phoenixville, Pa.).....	Major, A.U.S.
Corn, H. H., Des Moines (Douglas, Wyo.).....	Capt., A.U.S.
Coughlan, D. W., Des Moines (APO 689, New York, N. Y.).....	Capt., A.U.S.
Crowley, D. F., Jr., Des Moines (Presque Isle, Me.).....	Capt., A.U.S.
Crowley, F. A., Des Moines (APO 788, New York, N. Y.).....	Capt., A.U.S.
DeCicco, Ralph, Des Moines (APO 952, San Francisco, Cal.).....	Capt., A.U.S.
Decker, H. G., Des Moines (Long Beach, Cal.).....	Lt. Comdr., U.S.N.R.
Downing, A. H., Des Moines (Ft. Snelling, Minn.).....	1st Lt., A.U.S.
Dushkin, M. A., Des Moines (APO 689, New York, N. Y.).....	Lt. Col., A.U.S.
Elliott, O. A., Des Moines (Pecos, Texas).....	Capt., A.U.S.
Ellis, H. G., Des Moines (APO 710, San Francisco, Cal.).....	Capt., A.U.S.
Ervin, L. J., Des Moines (Lubbock, Texas).....	Lt. Col., A.U.S.
Fleck, W. L., Des Moines (Ft. Howard, Md.).....	Lt. Col., A.U.S.
Fried, David, Des Moines (Carlisle Barracks, Penn.).....	1st Lt., A.U.S.
Fracasse, John, Des Moines.....	1st Lt., A.U.S.
George, E. M., Des Moines (Fleet PO, San Francisco, Cal.).....	Lt. Comdr., U.S.N.R.
Gerchek, E. W., Des Moines.....	
Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.).....	Major, A.U.S.
Glomset, D. A., Des Moines (APO 9826 New York, N. Y.).....	Capt., A.U.S.
Goldberg, Louie, Des Moines (APO 926, San Francisco, Cal.).....	Capt., A.U.S.
Gordon, A. M., Des Moines (APO 600, New York, N. Y.).....	Capt., A.U.S.
Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.).....	Lt., U.S.N.R.
Greek, L. M., Des Moines (APO 512, New York, N. Y.).....	Capt., A.U.S.
Gurau, H. H., Des Moines (Malden, Mo.).....	Capt., A.U.S.
Haines, D. J., Des Moines (APO 453, San Francisco, Cal.).....	Capt., A.U.S.
Harris, D. D., Des Moines (Gulfport, Miss.).....	Lt. Comdr., U.S.N.R.
Harris, H. L., Des Moines (Salina, Kan.).....	1st Lt., A.U.S.
Hess, John, Jr., Des Moines.....	1st Lt., A.U.S.
James, A. D., Des Moines (Fort Eustis, Va.).....	Comdr., U.S.N.R.
Johnston, C. H., Des Moines (Randolph Field, Texas).....	Lt. Col., A.U.S.
Kast, D. H., Des Moines (Fort Stevens, Ore.).....	Capt., A.U.S.
Kelley, E. J., Des Moines (Columbus, Ohio).....	Lt. Comdr., U.S.N.R.
Kelly, D. H., Des Moines (Denver, Colo.).....	Lt. Col., A.U.S.
Kirch, W. A. W., Des Moines (Astoria, Ore.).....	Lt. Comdr., U.S.N.R.
Klocksien, H. L., Des Moines (APO New York, N. Y.).....	Capt., A.U.S.
Kottke, E. E., Des Moines (Temple, Texas).....	Capt., A.U.S.
Landis, S. N., Des Moines (West Palm Beach, Fla.).....	1st Lt., A.U.S.
La Tona, Salvatore, Des Moines.....	1st Lt., A.U.S.
Lederman, James, Des Moines.....	1st Lt., R.C.A.
Lehman, E. W., Des Moines (APO 711, San Francisco, Cal.).....	Major, A.U.S.
Losh, C. W., Jr., Des Moines (APO 209, New York, N. Y.).....	1st Lt., A.U.S.
Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.).....	Lt. Comdr., U.S.N.R.
Maloney, P. J., Des Moines (Fort Lewis, Wash.).....	1st Lt., A.U.S.
Marquis, G. S., Des Moines (Brooklyn, N. Y.).....	Lt. Comdr., U.S.N.R.
Martin, L. E., Des Moines (Helena, Ark.).....	1st Lt., A.U.S.
Matheson, J. H., Des Moines (San Leandro, Cal.).....	Lt. Comdr., U.S.N.R.
Mauritz, E. L., Des Moines (APO 763, New York, N. Y.).....	Capt., A.U.S.
McCoy, H. J., Des Moines (Iowa City, Iowa).....	Comdr., U.S.N.R.
McDonald, D. J., Des Moines (APO 339, New York, N. Y.).....	Major, A.U.S.
McNamee, J. H., Des Moines (San Diego, Cal.).....	Lt. Comdr., U.S.N.R.
Mencher, E. W., Des Moines.....	1st Lt., A.U.S.
Merkel, B. M., Des Moines (APO 520, New York, N. Y.).....	Major, A.U.S.
Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.).....	Capt., A.U.S.
Morden, R. P., Des Moines (APO 635, New York, N. Y.).....	Capt., A.U.S.
Mumma, C. S., Des Moines (Los Angeles, Cal.).....	Major, A.U.S.
Murphy, J. H., Des Moines (Fleet PO, San Francisco, Cal.).....	Lt., U.S.N.R.
Nelson, A. L., Des Moines (Camp Livingston, La.).....	Major, A.U.S.
Noun, L. J., Des Moines (Camp Peary, Va.).....	Lt., U.S.N.R.
Noun, M. H., Des Moines (APO 228, New York, N. Y.).....	Major, A.U.S.
Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.).....	Lt., U.S.N.
Patton, B. W., Des Moines (Camp Robinson, Ark.).....	1st Lt., A.U.S.
Pearlman, L. R., Des Moines (Battle Creek, Mich.).....	Major, A.U.S.
Peisen, C. J., Des Moines (APO 165, New York, N. Y.).....	Capt., A.U.S.
Penn, E. C., West Des Moines (APO 650, New York, N. Y.).....	Capt., A.U.S.
Pfeiffer, E. P., Des Moines (APO 711, San Francisco, Cal.).....	Capt., A.U.S.
Phillips, A. B., Des Moines (Corona, Cal.).....	Lt., U.S.N.R.
Porter, R. J., Des Moines (APO 635, New York, N. Y.).....	Capt., A.U.S.
Powell, L. D., Des Moines (Oceanside, Cal.).....	Capt., U.S.N.R.
Pratt, E. B., Des Moines (APO New York, N. Y.).....	Major, A.U.S.
Priestley, J. B., Des Moines (Camp Crowder, Mo.).....	Lt. Col., A.U.S.
Purdy, W. O., Des Moines (APO 5935, New York, N. Y.).....	Capt., A.U.S.
Riegelman, R. H., Des Moines (APO 559, New York, N. Y.).....	Major, A.U.S.
Robinson, V. C., Des Moines (Gulfport, Miss.).....	Major, A.U.S.
Rotkow, M. J., Des Moines (Ft. Benj. Harrison, Ind.).....	Capt., A.U.S.
Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.).....	1st Lt., A.U.S.
Schlaser, V. L., Des Moines (Fleet PO, San Francisco, Cal.).....	Lt., U.S.N.
Shepherd, L. K., Des Moines (APO New York, N. Y.).....	Major, A.U.S.
Shiffler, H. K., Des Moines (APO 230, New York, N. Y.).....	Capt., A.U.S.
Singer, P. L., Des Moines (Camp Grant, Ill.).....	1st Lt., A.U.S.
Skultety, J. A., Des Moines (New Orleans, La.).....	P. A. Surg., U.S.P.H.S.
Smead, H. H., Des Moines (APO 141, New York, N. Y.).....	Capt., A.U.S.
Smith, H. J., Des Moines (Chicago, Ill.).....	Lt., U.S.N.R.

Smith, R. T., Des Moines (APO 713, Unit I, San Francisco, Cal.) Capt., A.U.S.
 *Snodgrass, R. W., Des Moines (APO 9528, New York, N. Y.) Capt., A.U.S.
 Snyder, G. E., Grimes (APO 264, San Francisco, Cal.) Major, A.U.S.
 Sohm, H. A., Des Moines Lt. Comdr., U.S.N.R.
 Sorensen, R. M., Des Moines (Topeka, Kan.) Major, U.S.P.H.S.
 Springer, F. A., Des Moines (Treasure Island, Cal.) Lt. Comdr., U.S.N.R.
 Stearns, A. B., Des Moines (Denver, Colo.) Major, A.U.S.
 Stickler, Robert, Des Moines (APO New York, N. Y.) Major, A.U.S.
 Stitt, P. L., Des Moines (Seattle, Wash.) Lt. (jg), U.S.N.R.
 Throckmorton, J. F., Des Moines (APO 339, New York, N. Y.) Major, A.U.S.
 Toubes, A. A., Des Moines (APO 635, New York, N. Y.) Capt., A.U.S.
 Turner, H. V., Des Moines (Camp Fannin, Texas) Capt., A.U.S.
 Updegraff, Thomas, Des Moines (Spokane, Wash.) 1st Lt., A.U.S.
 Van Hale, L. A., Des Moines (APO 515, New York, N. Y.) Capt., A.U.S.
 Vaubel, E. K., Des Moines (Washington, D. C.) Capt., A.U.S.
 Wagner, E. C., Des Moines (Washington, D. C.) 1st Lt., A.U.S.
 Willett, W. M., Des Moines (APO 507, New York, N. Y.) Capt., A.U.S.
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Zarchy, A. C., Des Moines (Camp Cooke, Cal.) Capt., A.U.S.

Pottawattamie County

†Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.) Major, A.U.S.
 Collins, R. M., Council Bluffs (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Dean, A. M., Council Bluffs (Pensacola, Fla.) Comdr., U.S.N.R.
 Edwards, C. V., Council Bluffs (Pensacola, Fla.) Lt. Comdr., U.S.N.R.
 Floersch, E. B., Council Bluffs (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Hennessy, J. D., Council Bluffs (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Jensen, A. L., Council Bluffs (Temple, Texas) Lt. Col., A.U.S.
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.) Lt., U.S.N.R.
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.) Capt., A.U.S.
 Lambert, E. M., Council Bluffs (APO 403, New York, N. Y.) Major, A.U.S.
 Maiden, S. D., Council Bluffs (Camp Hood, Texas) Major, A.U.S.
 Martin, L. R., Council Bluffs (San Francisco, Cal.) Capt., A.U.S.
 Mathiasen, H. W., Neola (Alexandria, La.) Capt., A.U.S.
 Moskowitz, J. M., Council Bluffs (APO 403, New York, N. Y.) Capt., A.U.S.
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.) Capt., A.U.S.
 Standeven, W., Oakland (Colorado Springs, Colo.) Capt., A.U.S.
 Sternhill, Isaac, Council Bluffs (Springfield, Mo.) Capt., A.U.S.
 Tinley, R. E., Council Bluffs (APO 600, New York, N. Y.) Major, A.U.S.
 Treynor, J. V., Council Bluffs (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 West, A. G., Council Bluffs (APO 230, New York, N. Y.) Capt., A.U.S.
 Wieseler, R. J., Avoca (McChord Field, Wash.) A.U.S.
 Wurl, O. A., Council Bluffs (APO 887, New York, N. Y.) Major, A.U.S.

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Brobyn, T. E., Grinnell (Camp Swift, Texas) Major, A.U.S.
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 Larson, M. O., Hawarden (APO 562, New York, N. Y.) Lt. Col., A.U.S.
 Oelrich, A. M., Hull (APO New York, N. Y.) A.U.S.
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.) 1st Lt., A.U.S.

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 McFarland, J. E., Ames (Seattle, Wash.) Lt. Comdr., U.S.N.R.
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 Wall, David, Ames (Ft. Dix, N. J.) 1st Lt., A.U.S.

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 Brody, Sidney, Ottumwa Lt. Col., A.U.S.
 Gillilan, C. D. N., Eldon (Battle Creek, Mich.) Capt., A.U.S.
 Hughes, R. O., Ottumwa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Moore, G. C., Ottumwa (APO 17508, New York, N. Y.) Capt., A.U.S.
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 Prewitt, L. H., Ottumwa (Atlantic City, N. J.) Major, A.U.S.
 Selman, R. J., Ottumwa (El Paso, Texas) Col., A.U.S.
 Struble, G. C., Ottumwa (Fort Harrison, Ind.) Lt. Col., A.U.S.
 Whitehouse, W. N., Ottumwa (San Diego, Cal.) Lt. Comdr., U.S.N.R.

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Trueblood, C. A., Indianola (APO 350, New York, N. Y.)Capt., A.U.S.

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Droz, A. K., Washington (Fleet PO, San Francisco, Cal.)Comdr., U.S.N.R.
Mast, T. M., Washington (Long Beach, Cal.)Lt. Comdr., U.S.N.R.
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Larson, L. E., Decorah (Fleet PO, San Francisco, Cal.)Lt. Comdr., U.S.N.R.
Svendsen, R. N., Decorah (San Diego, Cal.)Lt. (jg), U.S.N.R.
Van Besien, G. J., Decorah (Springfield, Mo.)Capt., A.U.S.

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Boe, Henry, Sioux City (Fort Snelling, Minn.)Capt., A.U.S.
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Graham, J. W., Sioux City (Pensacola, Fla.)Lt. Comdr., U.S.N.R.
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Harris, D. M., Sioux City (APO 444, New York, N. Y.)Capt., A.U.S.
Heffernan, C. E., Sioux City (APO 17682, San Francisco, Cal.)Capt., A.U.S.
Hicks, W. K., Sioux City (Spokane, Wash.)Major, A.U.S.
Honke, E. M., Sioux City (Palm Springs, Cal.)Major, A.U.S.
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Lande, J. N., Sioux City (APO 63, New York, N. Y.)Major, A.U.S.
Martin, R. F., Sioux City (APO 403, New York, N. Y.)Capt., A.U.S.
Mattiee, L. H., Danbury (APO 713, San Francisco, Cal.)1st Lt., A.U.S.
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Mugan, R. C., Sioux City (Miami Beach, Fla.)Capt., A.U.S.
Osincup, P. W., Sioux City (APO 520, New York, N. Y.)Capt., A.U.S.
Rarick, I. H., Sioux City (Camp Pinedale, Cal.)Capt., A.U.S.
Reeder, J. E., Jr., Sioux City (APO 209, New York, N. Y.)Capt., A.U.S.
Ryan, M. J., Sioux City (Topeka, Kan.)Major, A.U.S.

Schwartz, J. W., Sioux City (APO 883, New York, N. Y.)Lt. Col., A.U.S.
Tracy, J. S., Sioux City (APO 569, New York, N. Y.)Major, A.U.S.

Worth County
Westly, G. S., Manly (APO 927, San Francisco, Cal.)Major, A.U.S.

Wright County
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Doles, E. A., Clarion (Spokane, Wash.)Capt., A.U.S.
Gorrell, R. L., Clarion (Denver, Colo.)P.A. Surg., U.S.P.H.S.
Leinbach, S. P., Belmond (Farragut Air Base, Idaho)Capt., A.U.S.
Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.)Capt., A.U.S.

(*) Reported missing in action.
(†) Reported deceased in service.
(‡) Reported prisoner of war.

CONGENITAL MALFORMATIONS ARISING FROM DEFICIENT MATERNAL DIET

(Continued from page 51)

of gestation. It is at this state in fetal development that undifferentiated mesenchymal structures develop into the well-differentiated membranous skeletal elements which are the forerunners of the cartilaginous and osseous skeleton. Apparently the membranous skeleton exists only for a short period and it is then that it is vulnerable to the presence or absence of riboflavin.

Still another type of congenital malformation could be regularly induced in about 45 per cent of the young if liver were added to the Steenbock and Block rachitogenic deficient diet but vitamin D withheld. The pattern of skeletal deformities resulting from this type of deficient diet was curving of the ulna, radius, tibia, fibula, and angulation and broadening of the ribs in their osseous parts. Again addition of vitamin D to the maternal diet prevented these malformations.

Perhaps the most important lesson to be learned from Warkany's study on animals is that the conception once generally held that congenital malformations were the result of defective genes and therefore nothing could be done may not be altogether true. Certainly the correlation of Warkany's observations as it relates to the human presents a most promising line of investigation and one which will be watched with great interest. In the meantime an additional responsibility would seem to have been imposed upon the obstetrician to make certain that the diet of his pregnant patients is complete in all respects.

The Annual Clinical Conference of the Chicago Medical Society, scheduled for February 27, 28 and March 1, has been cancelled as a contribution to the war effort.

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Pottawattamie.....	F. E. Marsh, Council Bluffs.....	G. V. Caughlan, Council Bluffs.....	G. N. Best, Council Bluffs
Poweshiek.....	H. C. Parsons, Grinnell.....	C. E. Harris, Grinnell.....	C. E. Harris, Grinnell
Ringgold.....	O. L. Fullerton, Redding.....	J. W. Hill, Mt. Airy.....	E. J. Watson, Diagonal
Sac.....	A. A. Blum, Wall Lake.....	J. W. Gauger, Early.....	J. R. Dewey, Schaller
Scott.....	A. A. Garside, Davenport.....	L. J. Miltner, Davenport.....	A. P. Donohoe, Davenport
Shelby.....	J. P. McGowan, Harlan.....		A. L. Nielson, Harlan
Sioux.....	A. L. Lock, Rock Valley.....	Wm. Doornink, Orange City.....	Wm. Doornink, Orange City
Story.....	Julia Cole, Ames.....	W. B. Armstrong, Ames.....	Bush Houston, Nevada
Tama.....	G. T. McDowell, Gladbrook.....	G. M. Dalbey, Traer.....	A. A. Pace, Toledo
Taylor.....	C. E. Buckley, Blockton.....	J. H. Gasson, Bedford.....	G. W. Rimel, Bedford
Union.....	J. A. Liken, Creston.....	C. E. Sampson, Creston.....	
Van Buren.....	Roscoe Pollock, Douds-Leando.....	J. A. Craig, Keosauqua.....	L. A. Coffin, Farmington
Wapello.....	S. F. Singer, Ottumwa.....	L. A. Taylor, Ottumwa.....	E. B. Hoeven, Ottumwa
Warren.....	G. A. Jardine, New Virginia.....	C. H. Mitchell, Indianola.....	C. H. Mitchell, Indianola
Washington.....	W. L. Alcorn, Washington.....	W. S. Kyle, Washington.....	E. D. Miller, Wellman
Wayne.....	D. R. Ingraham, Sewal.....	C. F. Brubaker, Corydon.....	L. B. Calbreath, Humeston
Webster.....	E. F. Beech, Fort Dodge.....	P. C. Otto, Fort Dodge.....	H. E. Nelson, Dayton
Winnebuck.....	V. J. Horton, Calmar.....	R. M. Dahlquist, Decorah.....	D. C. Kuhn, Decorah
Woodbury.....	C. A. Katherman, Sioux City.....	R. T. Rohwer, Sioux City.....	L. B. Blume, Sioux City
Worth.....	B. H. Osten, Northwood.....	M. P. Allison, Northwood.....	S. S. Westly, Manly
Wright.....	B. L. Basinger, Goldfield.....	J. R. Christensen, Eagle Grove.....	J. H. Sams, Clarion

WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

President—MRS. JAY C. DECKER, Sioux City

President-Elect—MRS. SOREN S. WESTLY, Manly

Secretary—MRS. ALLEN C. STARRY, Sioux City

Treasurer—MRS. ARTHUR E. MERKEL, Des Moines

REPORT OF FALL CONFERENCE

The first fall conference of presidents and presidents-elect was held in Chicago at the Palmer House, November 16 and 17.

On Thursday, November 16, at 9:30 a.m., the conference was called to order. The National President of the Woman's Auxiliary to the American Medical Association, Mrs. David W. Thomas, expressed her appreciation that so many were in attendance during this time of inconvenience of travel. Mrs. Thomas referred to the heroic efforts of the Medical profession in this war. We as Auxiliaries are determined to serve and do all we can to help the American Medical Association.

Mrs. Roscoe E. Mosiman of Seattle, Washington, was elected as conference chairman and Mrs. R. M. Shaffer of Kansas as recording secretary. Reports of the president and committee chairmen were given. Greetings were extended by Dr. Frank Hammond of the Chicago Medical Society.

At the noon luncheon held at the Palmer House, guest speakers were Dr. Herman L. Kretschmer, President, American Medical Association; Dr. Roger I. Lee, President-Elect; Dr. Morris Fishbein, Editor of the *Journal of the American Medical Association* and *Hygeia*, and Dr. W. W. Bauer, Director of Health Education. Dr. Kretschmer stressed leadership among members of the Auxiliaries in the furtherance of public health. Dr. Lee told of the postwar medical service which will help the medical officers returning from war zones. Dr. Fishbein, substituting for Colonel Leonard G. Rowntree, Chief of the Medical Division of Selective Service System, stressed "Physical Fitness." Numerous large industrial organizations are inaugurating programs for physical fitness among their workers. He also urged members to add *Hygeia* to their magazine list.

Dr. W. W. Bauer told of the fine work radio is doing in Health Education. There are many excellent transcribed programs which can be used over our radio stations, arranged for five to fifteen minutes of time. There are also many groups of records which can be used in schools or for clubs or county auxiliaries. One series is entitled "Medicine Serves America," another, "More Life for You," and there is also one recording on "Cancer." All or any of these can be obtained by writing Dr. W. W. Bauer, 535 North Dearborn Street, Chicago 10, Illinois.

Don't forget "Doctors at War" every Saturday afternoon from 3:00 until 3:30 o'clock.

Roll call Friday morning showed many state presidents and presidents-elect in attendance. Iowa was represented by your president and Mrs. S. S. Westly, president-elect. In the past year Illinois initiated a school of instruction for officers and reported they believed it would prove worth while. All states reported members were participating in war activities such as Red Cross, war loan drives, blood banks and canteen work. All reported hoping to hold their memberships as of the past year and some told of showing an increase. Many states reported the *Bulletin* a real inspiration to its members, and urged every member to be a subscriber. Send your *Bulletin* subscriptions to our chairman, Mrs. Matthew J. Moes, Dubuque, Iowa.

Mrs. David W. Thomas, National President, of Lock Haven, Pennsylvania, has accepted the invitation of the Woman's Auxiliary to the Iowa State Medical Society to be the guest speaker at its annual meeting, April 19, in Des Moines.

Best wishes to every member and may this new year of 1945 bring a victorious peace.

Mrs. Jay C. Decker, President

Activities of the Sioux Med-Dames

The Sioux Med-Dames of Sioux City gave a tea honoring their State President, Mrs. J. C. Decker, and their State Secretary, Mrs. A. C. Starry. It was held in the home of Mrs. W. H. Gibbon on September 10, 1944. Mrs. R. E. Crowder, president of the Sioux Med-Dames, presided at the meeting. Mrs. Decker brought inspirational suggestions and reported on the increased number of subscriptions to *Hygeia*.

The Christmas luncheon was held December 13 at the Warrior Hotel. It was made most enjoyable by a musical program. One of the members, Mrs. W. K. Hicks, sang, and the Gray Ladies Glee Club presented several selections. Mrs. P. L. Bettler, a member who sang in the group, is a nurses aide. As is the custom, a Good Fellows offering was taken and all responded generously. Work in the Lehan Nursery Project was reported to be progressing well.

The ladies were invited to the dinner meeting of the Woodbury County Medical Society which was held December 14. It was in honor of Dr. Prince

Sawyer who had completed fifty years in the practice of medicine. The meeting was well attended, there being many doctors and their wives from surrounding towns both in and out of Woodbury County. The speaker of the evening was Dr. Claude Dixon of the Mayo Clinic in Rochester, Minnesota.

Mrs. E. H. Sibley, Secretary

Meeting of the Polk County Auxiliary

The Auxiliary to the Polk County Medical Society met in Des Moines at Younkers Tea Room, November 17, with forty-eight in attendance.

Committee reports were given. The *Hygeia* Committee reported that it had placed the magazine in the Roadside Settlement, Southside Community House, Salvation Army, Jewish Community Center, the Y.M.C.A. and the Y.W.C.A. The subscription of the Locust Street U.S.O. was voted renewed. One of the committee members personally subscribed for the elementary school and the library of West Des Moines.

A resolution was adopted that the Polk County Auxiliary offer its encouragement and assistance to the extension of the Red Cross Home Nursing training throughout the community.

An announcement was made of the one day public health conference to be held December 6 at the Y.W.C.A. "War Health Findings in Polk County and Their Meaning for the Future" was the subject of the conference. The president stated that the Auxiliary had been requested to furnish three registrars for the meeting.

The wives of nine of our doctors in service were introduced by the president, Mrs. McPherrin. Each wife told where her husband was stationed.

The president presented the speaker of the afternoon, Dr. Martin I. Olsen, who spoke on the "Proposed Plan for Medical Care in Iowa."

Mrs. M. A. Royal, Secretary

PHYSICAL FITNESS OBJECTIVES*

1. Help each American learn physical fitness needs.
2. Protect against preventable defects.
3. Attend to correctable defects.
4. Know how to live healthfully.
5. Act to acquire physical fitness.
6. Set American standards of physical fitness at high levels.
7. Provide adequate means for physical development.

*From editorial by Morris Fishbein, M.D., in the September 1944 issue of *Hygeia*.

The Woman's Auxiliary to the American Medical Association has cancelled its annual meeting, scheduled to have been held in Philadelphia June 18 to 22, as a contribution to the war effort.

Speakers Bureau Activities

NEUROPSYCHIATRIC FILMS AVAILABLE

The Speakers Bureau is pleased to announce that a series of motion picture films on neuropsychiatric disorders has been made available to medical and strictly scientific groups for educational purposes by a new department of medical films in the New York University Film Library.

The series of eleven films is the work of S. Philip Goodhart, M.D., Chief of the Neuropsychiatric Division of Montfiore Hospital, New York, and Professor of Clinical Neurology at Columbia University; and Major Benjamin H. Balser, M.C., Consultant in Neuropsychiatry, First Air Force, and Associate in Neurology at Columbia University.

The films have been used for a number of years in courses given to medical students at Columbia University and are now being made available for teaching purposes and professional discussion groups through the medical department of the New York University Film Library.

Following is the list of 16 mm. films included in this series: Chorea, ten minutes; Convulsive and Allied Conditions, eleven minutes; Dystonia Musculorum Deformans, twenty minutes; Encephalographic Studies in Extrapryramidal Diseases, nine minutes; Epidemic Encephalitis, eighteen minutes; Friedreich's Hereditary Ataxia and Little's Disease, ten minutes; Neuro-Ophthalmological Conditions—Pathological Ocular Manifestations of Clinical Interest, eleven minutes; Progressive Hepato-Lenticular Degeneration, nine minutes; Progressive Muscular Atrophies, Dystrophies and Allied Conditions, fifteen minutes; Psychoneuroses, sixteen minutes; and Somatic Endocrine Types, fifteen minutes.

Arrangements for the use of these prints may be made through the Speakers Bureau. The request should be made at least three weeks in advance of the meeting date, and it is usually advisable to state a first and second choice.

SPEAKERS BUREAU RADIO SCHEDULE

WOI—Tuesdays at 1:00 p. m.

WSUI—Thursdays at 9.00 a. m.

February 6- 8 Venereal Disease

Harry A. Stribley, M.D.

February 13-15 The Treatment of Pneumonia

Ralph E. Munden, M.D.

February 20-22 Measles

Nelle E. T. Schultz, M.D.

February 27- Common Causes of Headache

March 1 William Doornink, M.D.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. WALTER L. BIERRING, Des Moines, Chairman

DR. HENRY G. LANGWORTHY, Dubuque, *Secretary*

DR. MURDOCH BANNISTER, Ottumwa

DR. JOHN T. MCCLINTOCK, Iowa City

DR. FRANK E. SAMPSON, Creston

WILLIAM W. BOWEN, M.D.

1869—1944

An Appreciation

In the spring of 1901 the writer was passing through Berlin and visited the pathologic department of the Charite Hospital to see once more the great master, Professor Rudolph Virchow, then in his eightieth year. In passing through the laboratory adjacent to the autopsy room, one of the workers arose from a laboratory stool and extended a hand of greeting—it was Dr. Bowen of Fort Dodge. After a few words over the surprise and pleasure of the meeting, we passed into the autopsy room where Professor Virchow was demonstrating the organs from a patient who had died of leukemia. It was evident that Dr. Bowen had made a good impression on his great teacher and associates as regards his earnest desire to study clinical pathology under their tutelage. The constant urge to learn of the newer developments in medical science dominated the entire professional career of our Iowa colleague. In the succeeding forty-five years of active medical service scarcely a year passed by that he did not make a study visit to one of the larger medical centers in this country. He was regarded as one of the Iowa pioneers in the field of radiology, particularly in x-ray diagnosis and the therapeutic use of x-ray and radium. This was carried on in connection with an active surgical practice.

On April 16, 1940, more than a hundred of his medical friends gave him a testimonial dinner to commemorate the completion of forty-five years of medical practice in Iowa. The many tributes of regard expressed on this happy occasion indicated the high place he had attained in Iowa medicine and in the affection of his colleagues.

Dr. Bowen was a member of a quartette often referred to as the four musketeers, comprising Dr. L. C. Kern of Waverly, the late Dr. J. A. W. Burgess of Iowa Falls, and Dr. Albert M. Barrett of Ann Arbor, Michigan. The latter for many years was

professor of neurology and psychiatry and director of the State Psychiatric Hospital at the University of Michigan. This quartette of medicos roomed together, had their own quiz class, and every five years after graduation had a reunion and a group photograph taken.

Many honors came to Dr. Bowen during his long and distinguished career. He was a charter member of the American Radiological Society, a Fellow (founders group) of the American College of Surgeons, a past president of the Iowa State Medical Society (1933), the Webster County Medical Society, Iowa X-ray Club, and the Austin-Flint and Twin Lakes Medical Societies. In his later years he became an ardent student of medical history, and contributed a very complete and interesting chapter to Iowa medical history in his story of medicine in Webster County published in the *JOURNAL* in 1942.

He was a member of the Fort Dodge Art Guild and his talent of pen and ink drawing is shown in his fine collection of colored drawings of birds displayed at the Blandon Memorial Art Gallery.

His death came after a brief illness, December 20, 1944, at the age of seventy-five years. He is survived by his wife, the former

Lydia May King, and two children, Harold K. of Osceola, and Mrs. Rex Ingram of Iowa City,* and three grandchildren.

Dr. Bowen was born in 1869 in Egypt, Illinois, and received his degree of Doctor of Medicine at the University of Iowa in 1895. He practiced medicine five years in Whittimore, Iowa, before locating in Fort Dodge in 1901. In his death Iowa Medicine mourns a great leader, a medical scholar, a genial and beloved colleague who exemplified the best ideals of our profession.—Walter L. Bierring, M.D.

*Dr. Rex Ingram, Professor of Anatomy, University of Iowa



WILLIAM W. BOWEN, M.D.

Medical History of Wapello County

CLYDE A. HENRY, M.D., Farson

Part III

(Continued from last month)

CIVIL WAR PHYSICIANS

Physicians who served in the Civil War, enlisting as residents of the county or locating here at the close of the war, were Drs. S. B. Thrall, W. L. Orr, J. W. LaForce, D. A. LaForce, B. W. Searle, J. C. Hinsey, Dudley W. Stewart, D. C. Dinsmore, G. M. Cowger, E. L. Lathrop, Charles G. Lewis and Seymour Carpenter.

After the Civil War, the Wapello County Medical Society was reorganized. Writing of the year 1876, Dr. Fairchild, in his "Medicine in Iowa," has this to say of that event: "A well organized Medical Society has been maintained with regular, monthly meetings for seven years past, embracing nearly all the regular physicians in the County." According to this statement, the reorganization of the Society occurred in 1869.

But Dr. A. O. Williams, who became a member of the Society April 6, 1875, while a resident of Eldon, years afterwards wrote as follows:

"During the Civil War the Society did not meet, and not until 1870 was the Wapello County Medical Society again reorganized with Dr. W. L. Orr, President; Dr. T. J. Douglass, Vice President; and Dr. J. Williamson, Secretary. Since this reorganization in 1870 the Wapello County Medical Society has met uninterruptedly."

A LOST RECORD BOOK

At a regular meeting of the Society on October 15, 1907, Dr. J. F. Herrick, who was then secretary, was ordered to deposit Record Book No. 2 in the Ottumwa Library for safe keeping. That the order was duly executed is attested by Dr. Herrick's own hand in Record Book No. 3. This book, so vitally important in the preparation of a connected history of the Society, cannot be found. Someone must have removed the book unbeknown to the Librarian. Whether negligence or willful intent accounts for its disappearance, the Wapello County Medical Society suffers a great loss. Who got the book, and why is the Library record incomplete?

The Lost Book period, beginning in 1869 or 1870 and continuing through the years to October 1, 1907, will be bridged by excerpts of articles and items which appeared in the *Iowa State Medical Reporter* and the *IOWA STATE MEDICAL JOURNAL*, and other available sources.

Early in this period instruments of precision began to make their appearance. One of these was the self-registering thermometer. Zealous of the skill acquired and enjoyed by competent physicians in clinical diagnoses, Dr. S. B. Thrall was prompted to prepare and read a paper entitled, "Remarks on the Clinical Thermometer," before the Wapello County Medical Society on December 4, 1883. The following excerpt is taken from the paper, which was published in the December issue of the *Iowa State Medical Reporter*, Vol. 1, number 6:

"Its tendency is to lessen in the minds of the people their faith in the mental powers of research of the physician who relies upon the indications of a self-registering instrument for his opinion of vital phenomena."

Dr. J. Williamson read a paper, "Injuries of the Perineum," at the Thirty-first Annual Meeting of the Iowa State Medical Society, in Council Bluffs, May 16 and 17, 1883. At the same meeting, Drs. J. C. Hinsey and S. B. Thrall were two of the thirty-seven delegates nominated as delegates to the American Medical Association to meet June 5 in Cleveland. Both attended and both served on various committees.

"The population of Wapello County in 1876 was 22,261. The number of educated practicing physicians was 25; two were listed as homeopaths, one an eclectic, and the remainder regular. There was one female practitioner, a graduate of Woman's Medical College at Philadelphia.

"Surgical operations of which mention might be made are: Ovariectomy in 1872 by J. Williamson; recovery. Vesico-Vaginal fistula in 1874 by J. Williamson; successful. A case of united twins, reported to the Iowa State Medical Society by J. Williamson in 1871. Ovariectomy in 1873 by J. C. Hinsey; death."

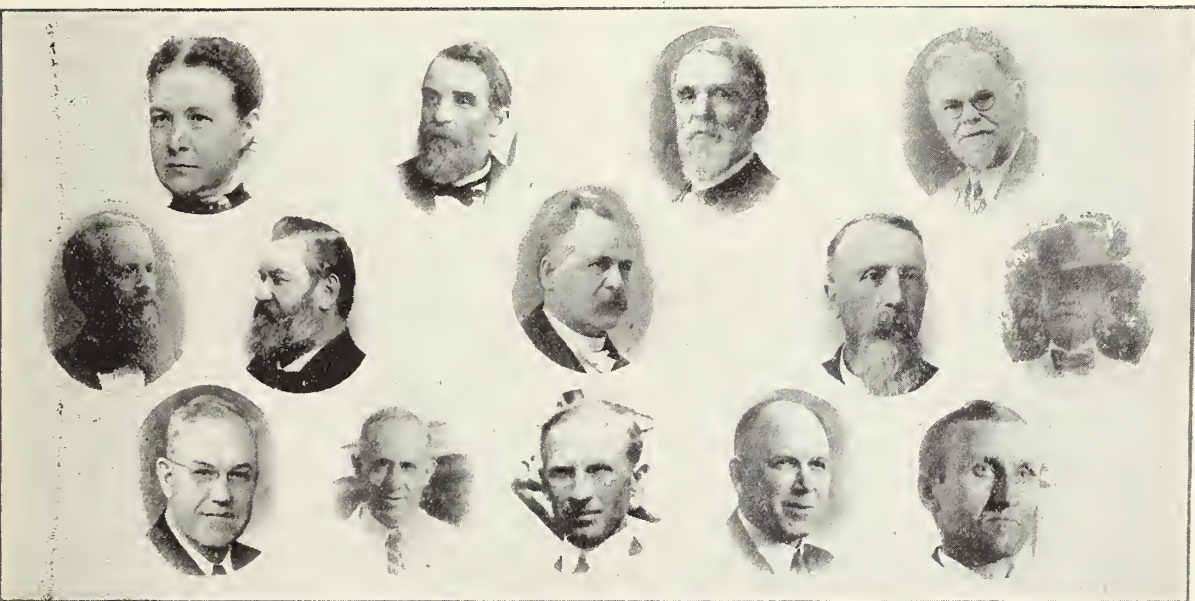
—*Iowa State Medical Reporter*.

GROWING NEEDS IN ETHICAL PRACTICE

Dr. J. Williamson delivered the Annual Address to the graduating class of the Iowa College of Physicians and Surgeons in March, 1884. Although the Medical Practice Act was passed two years later, the problem referred to in the following excerpt from that able address is as far from being solved as it was sixty years ago:

"Professional consultation is a subject that will sooner or later cause you some annoyance, for it seems impossible for the laity to understand why a regular physician cannot consult with a homeopathist, or with anyone who may choose to call himself a doctor. There is no law in Iowa regulating the practice of medicine, and the consequence is that a most motley set have come together within our borders. Looking out upon the fields, so varied are the shades, one is reminded of Jacob's flocks, all speckled and spotted and streaked, while many of the self-styled doctors are about as wise in medicine as Rev. Jasper is in astronomy. Here are the herb doctor, the Indian doctor, the cancer doctor, the rubbing doc-

"In the allotment of Providence it was reserved for Ottumwa, the County seat of Wapello County, to be the location of what is known throughout the country as Paul Castor's Infirmary. It was started in 1858 by one Paul Castor and has remained under his management ever since with such hired assistants as have been found necessary. (He is fifty years old, corpulent, coarse and uncouth in his physique, without education or knowledge of the world gained by travel, and with a defective articulation, rendering it difficult for a stranger to understand his speech, but with a fair share of natural sense and shrewdness.) This man publicly gave out that to him was communicated the divine apostolic gift of healing the



LATER PROMINENT PHYSICIANS

Top Row: Alice M. Stark, C. B. Lewis, C. G. Lewis, E. T. Edgerly
 Center Row: D. A. LaForce, T. J. Douglass, A. O. Williams, B. W. Searle, L. P. Torrence
 Bottom Row: H. H. Webb, W. B. LaForce, M. F. Moore, Evon Walker, Wm. Hansell

tor, the magnetic doctor, and many others, some of whom boast that they never learned to read. These pretenders have an equal right with yourselves to practice medicine in Iowa. Why this is so, is a question we would be glad to have our present legislators answer."

The great middle-west has won notoriety in more fields than agriculture. For instance, there were the goat glands of Milford; the Cancer Institute of Muscatine; and, at a very early date, the Paul Castor Infirmary at Ottumwa. Perhaps the psychometrist is yet unborn who can explain in understandable language why such things happen. But this is what Dr. Williamson wrote about the latter institution many years ago:

sick by the laying on of hands and rubbing of the affected parts. To this claim of supernatural power has lately been added a claim to the so-called magnetic forces. Thus equipped, this infirmary which was started eight years ago without money or influential friends, has become the resort of invalids from all parts of our common country. The capacity of the infirmary is 100 rooms with accommodations for at least 150 patients. The net profit of rubbing for the year 1865 is reported to be \$16,000. The receipts arising from the hotel department are not included in these figures."—J. Williamson.

How they worked, and what they labored for

(Continued on page 76)

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

LIPPINCOTT'S QUICK REFERENCE BOOK FOR MEDICINE AND SURGERY, a Clinical, Diagnostic, and Therapeutic Digest of General Medicine, Surgery, and the Specialties, Compiled Systematically from Modern Literature—By George E. Rehberger, M.D. Twelfth edition. J. B. Lippincott Company, Philadelphia, 1944. Price, \$15.00.

ARTHRITIS AND ALLIED CONDITIONS—By Bernard I. Comroe, M.D., Associate in Medicine, University of Pennsylvania, Senior Ward Physician and Chief of the Arthritis Clinic, Hospital of the University of Pennsylvania. Third edition, enlarged and thoroughly revised. Lea & Febiger, Philadelphia, 1944. Price, \$12.00.

ATLAS OF THE BLOOD IN CHILDREN—By Kenneth D. Blackfan, M.D., Late Thomas Morgan Rotch Professor of Pediatrics, Harvard Medical School, Late Physician-in-Chief, Infants' and Children's Hospitals, Boston; LOUIS K. DIAMOND, M.D., Assistant Professor of Pediatrics, Harvard Medical School, Visiting Physician and Hematologist, Infants' and Children's Hospitals, Boston. With illustrations by C. MERRILL LEISTER, M.D., Associate Pediatrician, St. Luke's Hospital, Bethlehem and Allentown General Hospital, Allentown, Pennsylvania. The Commonwealth Fund, New York, 1944. Price, \$12.00.

PRINCIPLES AND PRACTICE OF SURGERY—By W. Wayne Babcock, M.D., Emeritus Professor of Surgery, Temple University, Acting Consultant, Philadelphia General Hospital; with the collaboration of thirty-seven members of the faculty of Temple University. Lea & Febiger, Philadelphia, 1944. Price, \$12.00.

THE 1944 YEAR BOOK OF GENERAL MEDICINE—Edited by George F. Dick, M.D., J. Burns Amberson, M.D., George R. Minot, M.D., William B. Castle, M.D., William D. Stroud, M.D., and George B. Eusterman, M.D. The Year Book Publishers, Chicago, 1944. Price, \$3.00.

OPERATIONS OF GENERAL SURGERY—By Thomas G. Orr, M.D., Professor of Surgery, University of Kansas School of Medicine, Kansas City, Kansas. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

MODERN CLINICAL SYPHILOLOGY—By John H. Stokes, M.D., Professor of Dermatology and Syphilology, School of Medicine and Graduate School of Medicine, University of Pennsylvania; HERMAN BEERMAN, M.D., Assistant Professor of Dermatology and Syphilology, School of Medicine and Graduate School of Medicine, University of Pennsylvania; and NORMAN R. INGRAHAM, Jr., M.D., Assistant Professor of Dermatology and Syphilology, School of Medicine, University of Pennsylvania. Third edition, reset. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

SURGERY OF THE HAND—By Sterling Bunnell, M.D., honorary member of American Academy of Orthopedic Surgeons; member of American Association of Plastic Surgeons and of American Society of Plastic and Reconstructive Surgery. J. B. Lippincott Company, Philadelphia, 1944. Price, \$12.00.

THE ART OF RESUSCITATION—By Paluel J. Flagg, M.D., Chairman, Committee on Asphyxia, American Medical Association; President and Founder of the Society for the Prevention of Asphyxial Death, Inc. Reinhold Publishing Corporation, New York, 1944. Price, \$5.00.

BOOK REVIEWS

ARTHRITIS AND ALLIED CONDITIONS

By Bernard I. Comroe, M.D., Associate in Medicine, University of Pennsylvania, Senior Ward Physician and Chief of the Arthritis Clinic, Hospital of the University of Pennsylvania. Third edition, enlarged and thoroughly revised. Lea & Febiger, Philadelphia, 1944. Price, \$12.00.

This book of 1,360 pages is, in my opinion, one of the few books which should be not only in the library of every physician but on his desk for continuous study. The book is thoroughly written, reviewing in detail all of the multiple phases of arthritis in its connections to all anatomic and physiologic phases of medicine and surgery. The glands, circulation, nervous system, bones, joints, muscles, digestion, all have their marked influence upon arthritis. The book, as written, could and should be of daily vital interest to orthopedists, general practitioners, surgeons and pediatricists, as well as to internists. The practitioner of every branch of medicine daily sees his quota of arthritic individuals.

The text is complete in every divergent detail yet it has outlines, framed in heavy black, for quick reference for today's busy practitioner. The author outlines in detail all modes of treatment and frankly states their value or lack of value. The chapter on penicillin is easily worth the price of the book.

Chapter LXIII, pages 1,282 to 1,298 briefs 238 mistakes in the handling of arthritis. If every practitioner memorized these 238 mistakes, the treatment of arthritis would be considerably im-

proved. If this brief chapter were published in small book form it would be worth the cost of the present book.

The last chapter "Recent Advances in Arthritis" brings up to date this scholarly review of this most excellent volume.

I strongly urge its widespread and continuous use. F. L. K.

HANDBOOK OF NUTRITION

A symposium prepared under the auspices of the Council on Foods and Nutrition of the American Medical Association. American Medical Association, Chicago, 1943. Price, \$2.50.

This book is a compilation of articles published in the *Journal of the American Medical Association*. Each of the twenty-eight contributing writers is well known and distinguished in the field of medicine, biochemistry, and nutrition, thus the information is accurate and authoritative.

The first chapters in the book cover such subjects of basic nutrition as the specific nutrients and requirements of each, the distribution of these nutrients in food, their preservation in food processing, and the recommended dietary allowance of each. Feeding special groups, the evaluation of the American nutritional status, and nutrition in preventive medicine, as well as principles of diet in the treatment of disease, are included.

This book has been written for the practicing physician and is an excellent reference. L. A. S.

THE 1944 YEAR BOOK OF GENERAL MEDICINE

Edited by George F. Dick, M.D., J. Burns Amberson, M.D., George R. Minot, M.D., William B. Castle, M.D., William D. Stroud, M.D., and George B. Eusterman, M.D. The Year Book Publishers, Chicago, 1944. Price, \$3.00.

Every doctor should have and read this book. First, because of rapid advances in medicine we need the material presented; and second, it is a pleasure, not a chore. Again this year it stresses military and tropical medicine, which is something most of us need to review. New theories and treatments of pneumonia, tuberculosis, blood transfusions and their substitutes, heart diseases, the gastro-intestinal system, and nutrition are all well reviewed in a concise manner. The "Quiz Section" is stimulating and presents readily assimilable, newer knowledge in an enjoyable manner.

C. A. N.

CONTROL OF PAIN IN CHILDBIRTH

By Clifford B. Lull, M.D., Clinical Professor of Obstetrics, Jefferson Medical College, Assistant Director, Philadelphia Lying-in Unit, Pennsylvania Hospital; and ROBERT A. HINGSON, M.D., Surgeon, U. S. Public Health Service, Director, Postgraduate Medical Course, Philadelphia, Lying-in Unit, Pennsylvania Hospital. With an introduction by NORRIS W. VAUX, M.D., Obstetrician-in-Chief, Philadelphia Lying-in Unit, Pennsylvania Hospital. J. B. Lippincott Company, Philadelphia, 1944. Price \$7.50.

This book, written by two recognized authorities in their respective fields of obstetrics and anesthesiology, comprises a most complete and certainly the most recent information on the status of anesthesia and analgesia in childbirth. The text is divided into three parts. Part one deals with the anatomy of the organs of parturition and the physiopharmacology of the agents and technics used for the relief of pain during childbirth. Part two deals with the technics associated with the use of the agents and gives also pertinent features of the third stage of labor and the puerperium which may be directly or indirectly influenced by the anesthesia or analgesia employed. Part three considers the special difficulties accompanying the production of anesthesia and analgesia in the gravid patient with complications. The prevention and treatment of asphyxia neonatorum and a discussion of other factors directly related to the baby complete the book.

It will be evident to the well informed and discerning reader that the sections of the book devoted to inhalation and intravenous agents and technics are written by individuals whose information on these agents and technics was obtained more from thorough perusal of the literature than from abundant proficient use of the drugs and methods. The sections devoted to infiltration, regional and spinal technics are rational, complete, and replete with evi-

dence of a thorough understanding of the possibilities and limitations of these drugs and procedures. Beautiful and generous illustrations serve to expedite and simplify the appreciation of the material. The inordinate emphasis on the use of continuous caudal for the relief of pain at delivery is easily understood and perhaps excusable for authors who have put forth considerable effort in reviving and promoting this old and quite satisfactory technic.

The authors significantly point out that the most satisfactory use of the material in the book will be by the cooperative team of trained obstetrician and anesthesiologist. This emphasizes the fact that the safest and most efficient anesthesia and analgesia for the relief of pain during childbirth is primarily dependent on the ability of the anesthesiologist to apply the anatomic and physiopharmacologic principles and not merely on his knowledge of those principles. The trained obstetrician and anesthesiologist will be familiar with the material contained in this volume but its concise organization may prove useful. The book will be of interest to the general practitioner and student who wish to enlarge their understanding of the fundamental problems associated with this aspect of anesthesiology. It is likely that the authors will regret the use of the book as a manual by the neophyte anesthesiologist and obstetrician.

S. C. C.

TABOR'S DICTIONARY OF GYNECOLOGY AND OBSTETRICS

By Clarence Wilbur Taber, Medical Editor and author of Taber's Cyclopedic Medical Dictionary, Taber's Condensed Medical Dictionary, and Dictionary of Food and Nutrition; with the collaboration of MARIO A. CASTALLO, M.D., Assistant Professor of Obstetrics, Jefferson Medical College, Gynecologist to St. Mary's and St. Agnes Hospitals, Obstetrician to St. Mary's Hospital. F. A. Davis Company, Philadelphia, 1944. Price, \$3.50.

Upon glancing through this book one realizes by the illustrations that the emphasis is on gynecology and obstetrics. Upon a more detailed examination one becomes bewildered by the mass of irrelevant material such as directions for removing grass stains and chocolate from clothing and tables of the "average blood pressure of old men and old women, 65 to 90." Three full pages are devoted to sputum. Some gynecologic definitions are inadequate and incorrect. Four full pages are devoted to "symptoms" but no gynecologic or obstetric symptoms are given.

Treatments suggested are sometimes unusual. Are treatments usually given in dictionaries?

An attempt has been made to bring it up to date by giving a lengthy discussion on the sulfonamides, yet the antiseptics for skin are given as alcohol, sulfur and ichthylol.

The book cannot be recommended for physicians, nurses, or laymen.

A. M. B.

SOCIETY PROCEEDINGS

Black Hawk County

The regular monthly meeting of the Black Hawk County Medical Society was held in Waterloo at Black's Tea Room Tuesday, January 16, at 6:30 p. m. The guest speaker of the evening was Lieutenant Rex B. Foster, dental officer at the WAVE Training Center in Cedar Falls and a former dentist of Waterloo, who spoke on his experiences as dental surgeon on the hospital ship U. S. S. Solace. He illustrated his discussion with lantern slides of war casualties whom he cared for aboard his ship.

At the Society's annual meeting in December Dr. Burr C. Boston was named president-elect; Dr. Harold O. Gardner, vice president; Dr. Sterling A. Barrett, secretary; Dr. George C. Murphy, treasurer; Dr. F. Harold Entz, trustee; Dr. Emery E. Magee, delegate; Dr. Boston, alternate; and Dr. John L. Kestel, censor. Dr. Henry A. Bender was installed as president, having been chosen president-elect last year. All officers are of Waterloo.

H. A. Bender, M.D., President

Clarke County

The postponed meeting of the Clarke County Medical Society was held Wednesday evening, January 17, in conjunction with the dinner of the Osceola Rotary Club. The program consisted of a discussion of Socialized Medicine by Albert L. Yocum, M.D., and a review of the Iowa Medical Service Plan by Roy C. Gutch, M.D., both of Chariton. The program was thought-provoking and was discussed favorably by lay members both during and after the meeting.

All members of the Society were present and also several guests from adjoining territories. Following the Rotary dinner a business meeting of the Society was held and the following officers elected for 1945: Dr. Frederick S. Bowen of Woodburn, president; Dr. Herbert E. Stroy of Osceola, vice president; Dr. Conreid R. Harken, secretary-treasurer; Dr. Harken, delegate; and to the Board of Censors, Dr. Bowen for three years, Dr. William F. Dean of Osceola for two years, and Dr. Stroy for one year.

C. R. Harken, M.D., Secretary

Clinton County

The Clinton County Medical Society held its first meeting of the year at the Elks Club in Clinton, Thursday, January 18, with dinner at 6:30 p. m. Officers elected for 1945 were Dr. Robert E. Dwyer of Clinton, president; Dr. Leander H. Schafer of DeWitt, vice president; and Dr. Joseph E. O'Donnell of Clinton, secretary-treasurer. Hubert K. Knudsen, M.D., of Clinton, conducted a roundtable discussion on X-Ray Therapy of Infections and Inflammatory

Conditions. Guests included officers from Schick General Hospital and visitors from surrounding towns.

Dubuque County

Officers elected to serve the Dubuque County Medical Society during 1945 include Dr. Howard E. Thompson, president; Dr. Matthew J. Moes, first vice president; Dr. Frank J. Bries, second vice president; Dr. Joseph W. Lawrence, secretary; Dr. Harry A. Stribley, treasurer; Dr. J. Carl Painter, delegate; and Dr. John A. Thorson, alternate. All officers are of Dubuque with the exception of Dr. Bries who is located in Holy Cross.

Jasper County

At a recent meeting of the Jasper County Medical Society Dr. Raymond F. Frech was re-elected president of the group. Other officers re-elected were Dr. Leon P. Adams, vice president; and Dr. Thomas D. Wright, secretary-treasurer. All officers are of Newton.

Johnson County

The Johnson County Medical Society held its regular monthly meeting in Iowa City at the Hotel Jefferson Wednesday, January 3, at 6:00 p. m. The usual business meeting was held following dinner, with inauguration of the new officers. The scientific program consisted of a discussion of Some Newer Developments in Skin Grafting. The report covered work done at the University Hospitals in the Departments of Pathology and Surgery; Emory D. Warner, M.D., presented the pathologic aspects and Robert T. Tidrick, M.D., discussed the clinical aspects.

R. H. Flocks, M.D., Secretary

Monona County

A meeting of the Monona County Medical Society was held in Onawa at the Royal Cafe Friday evening, December 15. Dr. Edward J. Liska of Ute was elected president of the Society for 1945 and Dr. Earl E. Gingles of Onawa, secretary-treasurer. Checks were sent as Christmas gifts to the Monona County doctors in military service.

Palo Alto County

The annual winter meeting of the Palo Alto County Medical Society was held in Emmetsburg at the McNutt Tea Room Thursday evening, January 11. The business meeting and scientific program were held in the hospital parlors.

Polk County

The annual meeting of the Polk County Medical Society was held in Des Moines at the Des Moines Club Wednesday, January 17, at 6:30 p. m. Election of officers was held following dinner and those named were Dr. Martin I. Olsen, president-elect; Dr. Edward W. Anderson, secretary-treasurer; Dr. Malcolm A. Royal, trustee; Dr. James A. Downing, councilor-at-large; Drs. John C. Parsons, Lee F. Hill, Clifford W. Losh, Russell C. Doolittle and William R. Hornaday, delegates; and Drs. Christian B. Luginbuhl, Alonzo L. Jenks, Jr., Abraham G. Fleischman, Lewis M. Overton, and Harold C. Black, alternates. Dr. Arthur E. Merkel, who has been president-elect, assumed office for the current year. All officers are of Des Moines.

The guest speaker of the evening was Mr. Vincent Starzinger, General Counsel for the Register and Tribune Company, who presented an excellent address entitled A Proposal of Marriage. The Honorable Robert D. Blue, Governor of Iowa, and John MacVicar, Mayor of Des Moines, also spoke briefly.

Tama County

Members of the Tama County Medical Society met in the Traer Library for a business meeting Friday evening, January 5, following a dinner at the Please-U Cafe at 6:30 p. m. Officers elected for 1945 were Dr. Gilbert T. McDowall of Gladbrook, president; Dr. Arthur A. Pace of Toledo, vice president; Dr. Glenn M. Dalbey of Traer, secretary-treasurer; and Dr. Frederick W. Gessner of Dysart, delegate.

Wapello County

The February meetings of the Wapello County Medical Society will be held on the sixth and twentieth of the month. The meeting Tuesday, February 6, will be at St. Joseph Hospital and the program will consist of a film entitled Indirect Inguinal Hernia, which includes the surgical anatomy, clinical aspects, and operative repair of hernia. The guest speaker at the meeting Tuesday, February 20, will be Ira Nelson Crow, M.D., of Fairfield, who will discuss Tumors of the Eye. This meeting is also scheduled to be held at St. Joseph Hospital.

Woodbury County

The annual meeting of the Woodbury County Medical Society was held in Sioux City at the Martin Hotel Thursday evening, January 11. Dr. Charles A. Katherman, who has been president-elect of the Society, assumed office of president. Dr. Clifford R. Watkin was chosen president-elect and will succeed Dr. Katherman in 1946. Also elected was Dr. Farnk D. McCarthy as secretary-treasurer-elect. Dr. Roland T. Rohwer, who has been secretary-treasurer-elect, assumed office for the current year.

PERSONAL MENTION

Dr. Harry E. Nelson of Dayton completed fifty years of active practice in that city on December 20. Dr. Nelson first located in Lehigh where he practiced for a year and a half before moving to Dayton on December 20, 1864.

Dr. Helge Borre, who has practiced in Emerson for the past six years, has moved to Red Oak and opened offices in the Montgomery County National Bank Building.

Dr. John L. Klein, Jr., of Muscatine spoke before the Twentieth Century Club of that city Tuesday evening, January 9, at the home of one of the members. Dr. Klein discussed New Advances in Medicine.

Dr. George L. Venable, who has practiced in New Sharon for the past twenty-five years, has moved to North Manchester, Indiana, where he will continue in the practice of medicine.

Dr. Wilson C. Wolfe has resumed his practice in Ottumwa after ten months of active duty in the United States Naval Reserve. Dr. Wolfe, who served in the Navy as a Lieutenant, junior grade, has been given a medical discharge.

Dr. John A. Thorson of Dubuque addressed the Kiwanis Club of that city at its meeting Tuesday noon, January 16. The subject of his talk was A Doctor's Viewpoint on Politically Controlled Medical Practice.

Dr. Albert I. Haugen, who has practiced in Ames since 1930, is moving to Los Angeles, California, where he is to be associated with a staff of physicians in a clinic.

Dr. A. Fred Watts has moved to Seattle, Washington, to form a partnership with an established physician there. Dr. Watts has been located in Creston since 1920.

The American College of Surgeons has notified the JOURNAL that the following Iowa physicians were accepted into fellowship in the College in 1944: Drs. James W. Agnew of Iowa City, Robert N. Bartels of Iowa City, Edward L. Besser of Iowa City, William G. Bessmer of Davenport, William E. Cody of Sioux City, Roger R. Flickinger of Mason City, Rubin H. Flocks of Iowa City, Arthur A. Garside of Davenport, Theodore J. Greteman of Iowa City, Carl H. Matthey of Davenport, and Wade O. Preece of Waterloo.

Dr. W. Norman Doss of Leon recently spoke before the Rotary Club of that city. Dr. Doss chose Diagnosis as the topic of his discussion.

MARRIAGE

Mrs. Jessie Weese and Dr. Frank W. Fordyce, both of Des Moines, were united in marriage Wednesday evening, December 27, in the chapel at Central Presbyterian Church in Des Moines. The couple is at home in the Wetherell Apartments, 4024 Grand Avenue. Dr. Fordyce has been practicing in Des Moines for several years.

DEATH NOTICES

Bowen, William W., of Fort Dodge, aged seventy-five, died December 20 following a brief illness. He was graduated in 1895 from the State University of Iowa College of Medicine, and had long been a member of the Webster County and Iowa State Medical Societies. A more complete obituary will be found in the History of Medicine section of this issue.

Lacey, Thomas Bigelow, of Glenwood, aged sixty-four, died December 29 after an illness of several months. He was graduated in 1906 from Creighton University School of Medicine, and at the time of his death was a member of the Mills County and Iowa State Medical Societies.

Magoun, Charles Elmer, formerly of Sioux City, aged fifty-six, died December 22. He was graduated in 1915 from Middlesex University School of Medicine in Waltham, Massachusetts, and at the time of his death was a member of the Woodbury County and Iowa State Medical Societies.

Nervig, Isaac Eugene, of Sioux City, aged seventy, died December 24 following a long illness. He was graduated in 1902 from the State University of Iowa College of Medicine, and had long been a member of the Woodbury County and Iowa State Medical Societies.

Wright, Charles Edward, of Clear Lake, aged eighty-three, died December 21 after an illness of a few weeks. He was graduated in 1898 from the State University of Iowa College of Medicine, and at the time of his death was a member of the Cerro Gordo County and Iowa State Medical Societies.

Baker, Robert Ward, of Davenport, aged twenty-eight, died in England of virus pneumonia which he contracted while serving as a Captain in the Medical Corps of the Army of the United States. He was graduated in 1940 from the State University of Iowa College of Medicine, and at the time of his death was a member of the Scott County and Iowa State Medical Societies.

MEDICAL HISTORY OF WAPELLO COUNTY

(Continued from page 71)

sixty years ago, and the exemplary manner in which they set about to achieve their purposes, is recorded in the *Iowa State Medical Reporter* for the year 1884.

Here it is, a classical record of inspiration and achievement:

MEETING OF THE WAPELLO COUNTY MEDICAL SOCIETY

"The regular monthly meeting was held at the office of Drs. O'Neil and Hyatt, Tuesday, February 5th, 1884. Dr. L. J. Baker, president, in the chair.

"Minutes of last meeting read and approved.

"On favorable report of Board of Censors, Dr. E. M. Arenschild, of Eldon, was made a member.

"By request of Society, Dr. L. J. Baker read a paper on sanitation, during discussion of which it was stated that the supply of river waters was contaminated by slaughter-houses above the city.

"Drs. Thrall, Hinsey and Hyatt were appointed a committee to prepare a Memorial to the city council regarding the contamination of our water supply, said Memorial to be submitted to this Society at its next meeting.

"On motion of Dr. Thrall, the secretary was authorized to forward each month, to the *State Medical Reporter*, a synopsis of the proceedings of this society * * * Dr. Alice M. Stark was appointed to prepare a paper for the next meeting in May.

"Society adjourned.

S. A. Spilman, Secretary."

(To be Continued)

SPRING REFRESHER COURSE IN OTOLARYNGOLOGY

The fifth semi-annual refresher course in laryngology, rhinology, and otology will be conducted by the University of Illinois College of Medicine in Chicago, March 26 to 31 inclusive. While the course will be largely didactic, some clinical instruction will be included. This course is intended primarily for ear, nose, and throat specialists. Since the registration is limited to thirty, applications will be considered in the order in which they are received. The fee is \$50.00. When writing for application, please give details concerning school, year of graduation, and past training and experience. Address Dr. A. R. Hollender, Chairman, Refresher Course Committee, Department of Otolaryngology, University of Illinois, College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.



M. C. Hennessy, M.D.

President

Iowa State Medical Society

1944-1945

The JOURNAL of the Iowa State Medical Society

VOL. XXXV

DES MOINES, IOWA, MARCH, 1945

No. 3

IOWA STATE MEDICAL SOCIETY

Organized in 1850

NOTICE OF CANCELLATION of

Ninety-Fourth Annual Session

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PRESIDENT'S STATEMENT

To the Membership:

This statement is notice to you of the cancellation of the annual scientific program of the Iowa State Medical Society which was scheduled to be held in Des Moines April 19 and 20, 1945. The cancellation is in compliance with the request of the Office of Defense Transportation to dispense with all meetings of over fifty persons in furtherance of the country's war effort.

As your President, I must confess this cancellation was made with a little regret. However, this regret is more than offset by my pride in the membership of the Iowa State Medical Society which again, as has always been the case, is cooperating to the fullest extent with our Government in all emergencies, regardless of the cost.

I think you are entitled to know that everyone connected in any way with preparing the contemplated program has functioned one hundred per cent, and that all arrangements, with the exception of a few minor details, were complete for presenting the program to the membership. I wish at this time to thank the section chairmen for their untiring efforts in arranging the scientific program. These chairmen, Dr. Horace M. Korn for medicine, Dr. Gerald V. Caughlan for surgery, Dr. Wayland H. Maloy for eye, ear, nose and throat, not only invited the various essayists to appear, but since cancellation, have arranged with the essayists to furnish their papers for publication in the JOURNAL during the year in lieu of their

personal appearances at the meeting. You will find the program on the following page.

I am also grateful to Dr. James A. Downing and Dr. Lewis M. Overton for the work they have done in preparing for the scientific moving picture section and the scientific exhibit section.

I wish to thank the central office and all those who assisted in arranging for the commercial exhibits, as well as the many exhibitors who had purchased space. The work for this section has had to be undone and the money refunded, which means a financial loss to the Society.

HOUSE OF DELEGATES

Please do not interpret this statement to mean that the annual meeting of the House of Delegates has been canceled. I am not able, at this writing, to give you any definite information about this meeting because there are legal technicalities which make it impossible to make a decision at this time. I do wish to assure you that your officers are endeavoring to arrange for the House of Delegates so that we may follow the intent of our Constitution and corporate structure. As soon as expected rulings are received from Washington, the decision will be made and you will be notified at the first possible moment.



President.

PROPOSED SCIENTIFIC PROGRAM

President's Section

M. C. HENNESSY, M.D., Council Bluffs, President

Medicine and Medical Education in the Postwar Era
EWEN M. MAC EWEN, M.D., Dean, College of Medicine, State University of Iowa, Iowa City

Rôle of the Sanatorium in the Postwar Period
WILLIAM M. SPEAR, M.D., Superintendent, State Sanatorium, Oakdale

Postwar Care of the Mentally Ill in the State Hospitals

CHARLES F. OBERMANN, M.D., Medical Superintendent, Cherokee State Hospital, Cherokee

One Man's Opinion

M. C. HENNESSY, M.D., President, Iowa State Medical Society, Council Bluffs

Medical Section

HORACE M. KORNS, M.D., Iowa City, Chairman

Amebiasis

WILLIS M. FOWLER, M.D., Associate Professor Theory and Practice of Medicine, College of Medicine, State University of Iowa, Iowa City

Moving Picture on Malaria

MILFORD E. BARNES, M.D., Professor of Hygiene and Preventive Medicine, College of Medicine, State University of Iowa, Iowa City

Blackwater Fever

RICARDO CASTANEDA, M.D., College of Medicine, State University of Iowa, Iowa City

Malaria in Returning Servicemen

COLONEL PAUL F. RUSSELL, M.C., Chief, Parasitology Division, Army Medical School, Army Medical Center, Washington, D. C.

Chinese Native Ophthalmology

OTIS S. LEE, M.D., College of Medicine, State University of Iowa, Iowa City

Surgical Section

GERALD V. CAUGHLAN, M.D., Council Bluffs, Chairman

Renal Stone

RUBIN W. FLOCKS, M.D., Associate Professor of Urology, College of Medicine, State University of Iowa, Iowa City

Penicillin in the Treatment of the Urinary Tract

MAJOR EDWARD M. HONKE, M.C., Torney General Hospital, Palm Springs, California

One Stage Suprapubic Prostatectomy with Primary Bladder Closure

CLIFFORD W. LOSH, M.D., Des Moines

Cancer of the Prostate Gland: Treatment with Special Reference to Stilbestrol and Castration

LAWRENCE E. PIERSON, M.D., Sioux City

The Management and Care of a Patient with a Colostomy

LOUIS E. MOON, M.D., Associate Professor of Surgery, Creighton University School of Medicine, Omaha, Nebraska

Eye, Ear, Nose and Throat Section

WAYLAND H. MALOY, M.D., Shenandoah, Chairman

Control of Hemorrhage

PAUL G. MOORE, M.D., Assistant Clinical Professor of Ophthalmology, Western Reserve University School of Medicine, Cleveland, Ohio

Headaches, Dizziness and Nosebleed

THOMAS R. GITTINS, M.D., Sioux City

Uses of Penicillin in Ophthalmology and Otolaryngology

CECIL C. JONES, M.D., Des Moines

Rehabilitation of the Blind and Deaf

CHARLES E. CHENOWETH, M.D., Mason City

Symposium on Neoplasms of the Larynx:

Anatomic Aspects

EUGENE W. SCHELDROP, M.D., Associate Professor of Anatomy, College of Medicine, State University of Iowa, Iowa City

Pathologic Aspects

EMORY D. WARNER, M.D., Associate Professor of Pathology, College of Medicine, State University of Iowa, Iowa City

Diagnosis, Symptoms and Examination

PAUL G. MOORE, M.D., Assistant Clinical Professor of Ophthalmology, Western Reserve University School of Medicine, Cleveland, Ohio

Treatment

DEAN M. LIERLE, M.D., Professor of Otolaryngology, College of Medicine, State University of Iowa, Iowa City

Speech Training in Laryngectomized Patients

DR. C. R. STROTHER, Department of Speech, State University of Iowa, Iowa City

POLYCYTHEMIA VERA*

LIEUTENANT COMMANDER ROBERT A. TOWLE,
M.C., U.S.N.R.,CAPTAIN FOREST H. COULSON, M.C., A.U.S.,
and WILLIS M. FOWLER, M.D., Iowa City

Polycythemia vera is a relatively rare disease of the hematopoietic system but recent reports, in stressing particularly the great variety of clinical manifestations of the disease and the frequency with which it is confused with other diseases, have suggested that many of these cases pass unrecognized. This is especially true in the early stages when symptoms may be present before the characteristic changes in the blood make their appearance. The incidence of the disease may therefore be greater than is commonly believed. In contrast to those patients in whom there are early subjective manifestations, there are others in whom the disease is recognized by the characteristic blood picture which is found on a routine blood examination, the patient having had no significant symptoms referable to the polycythemia.

The disease was first described by Vaquez in 1892, but Osler's^{1,2} descriptions in 1903 and 1904 brought it to the attention of physicians so that reports and discussions of the disease have appeared in increasing numbers since that time. The etiology of the disease has remained a mystery, most observers believing that it is comparable to leukemia and is probably neoplastic in origin. Reznikoff³ has suggested that a thickening of the walls of the small vessels in the bone marrow may so interfere with the liberation of oxygen that anoxia of the erythropoietic centers develops and acts as a stimulus to cause an increased production of erythrocytes. Other workers have been unable to demonstrate consistently the vascular changes which he describes.

The salient features on which the diagnosis is based are the hematologic findings, consisting of an elevated erythrocyte count, hematocrit, and hemoglobin level. A leukocytosis with a nuclear shift to the left is usually present and the platelets are increased in most instances. As evidences of the hyperplasia and overactivity of the bone marrow there are polychromatophilia and occasional nucleated erythrocytes in the peripheral blood stream. The total blood volume is increased and this is due predominantly to an increase in red cell mass.⁴ There is little or no increase in the volume of the plasma. The increase in the red cell mass produces a marked increase in the viscosity of the blood, commonly to four or five times the normal value, and an increase in the

specific gravity of the blood to 1.075 or 1.080 as compared to normal values between 1.055 to 1.065. This increased viscosity of the blood together with the great increase in blood volume causes a sluggishness of blood flow, and distention and tortuosity of the capillary vessels, particularly of their venous segments. Engorgement of the vascular bed and slowing of the blood flow in turn account for many of the patient's symptoms as well as for the fact that spontaneous thromboses of the vessels and hemorrhages are frequent clinical features. Although hemorrhages are common, the bleeding time and coagulation time are normal, the platelets are usually increased in number, and upon attempting venesection great difficulty may be encountered because the blood coagulates so readily. The hemorrhagic tendencies in these patients are secondary to the intense engorgement and distention of the vessels. Thrombosis of the coronary and cerebral vessels are common events, and occasionally mesenteric thrombosis occurs resulting in abdominal pain suggestive of an acute abdominal condition requiring surgical intervention. Thrombosis of the vessels of the extremities may produce a picture simulating thrombo-angiitis obliterans or erythromelalgia.⁵

Before a diagnosis of polycythemia vera can be made, it is necessary to exclude those diseases in which a secondary polycythemia may occur. These include those chronic cardiac or pulmonary diseases in which there is improper oxygenation of the blood or interference with the gaseous exchange resulting in anoxemia which serves to stimulate erythrocyte production. This is seen in congenital heart lesions which are accompanied by cyanosis and occasionally in long standing acquired heart disease, especially mitral stenosis. Extensive pulmonary fibrosis or lesions of the pulmonary artery, such as sclerosis or syphilis, produce a similar hematopoietic response. Polycythemia may also accompany tuberculosis or syphilis of the spleen or extensive thrombosis of the portal and splenic vessels.

Polycythemia vera is a disease of late adult life and therefore occurs in the age period when arteriosclerosis and hypertension are particularly frequent, so that these conditions, together with cardiac hypertrophy, frequently coexist. It is difficult to evaluate the part played by the polycythemia in bringing about vascular disease. In view of Atschule's findings,⁶ however, cardiac hypertrophy and hypertension are probably coexisting diseases rather than having a cause and effect relationship. He has shown that in uncomplicated polycythemia vera the cardiac output, cardiac work, and the venous pressure are normal. Dameshek's⁵ series of cases illustrates the fact that polycythe-

*From the Department of Internal Medicine, State University of Iowa.

mia vera may simulate cardiovascular or peripheral vascular disease, disease of the central nervous or gastro-intestinal systems, arthritis, nephritis, or neurasthenia. Obviously the manifestations are extremely variable and may be referable to any system in the body.^{7, 8, 9}

The disease undoubtedly develops very slowly, requiring many years to reach its peak, but there is no method of recognition before the hematologic features are fully developed. Even after symptoms have become apparent it is frequently a matter of years before they become severe enough to cause the patient to consult a physician. In this series of twenty-five consecutive cases in which the diagnosis of polycythemia vera seemed to be established without question, the average duration of symptoms before medical advice was sought was three years. One patient had slight symptoms for seven years, while the shortest duration of symptoms was six months. The course is exceedingly slow and chronic, and a duration of ten or more years after the onset of symptoms is not uncommon. Some have gone for as long as fifteen years, so that barring the occurrence of one of the serious complications the patient may expect several years of comfortable existence.

The present series of cases consists of five females and twenty males. This is a higher percentage of males than is usually encountered. The ages varied from thirty-six to seventy years, with an average of fifty-four years, and there was no significant difference in the ages of the female and the male patients. A majority of the patients were natural born Americans, but a few were of Scandinavian origin. None of the group was Jewish, which is in distinct contrast to the racial incidence observed in other localities.^{3, 5}

A majority of the patients had symptoms referable to the central nervous system. Dizziness, especially on changing position, was the most frequent complaint, but was followed closely in its incidence by headache. A sense of fullness and pressure in the head was occasionally encountered, while others complained of roaring in the ears, spots before the eyes, or fainting. A loss of memory and a mild sense of confusion were noted by some. Several patients felt that after removal of blood by venesection their head felt clearer and they were more alert, although prior to treatment they had not noticed the presence of these symptoms. The more serious of the cerebral manifestations consist of thrombosis of cerebral vessels with the hemiplegia or other manifestations of cerebral accidents. This may be the terminal event, and it occurred in three of these 25 patients.

Cardiac symptoms were a feature in eleven of

the cases, the most frequent being shortness of breath on exertion. The interpretation of these symptoms is difficult since polycythemia occurs in the age group when arteriosclerotic changes are to be expected. In four instances there were definite evidences of arteriosclerotic heart disease, each having hypertension, cardiac hypertrophy, peripheral arteriosclerosis and electrocardiographic evidences of a damaged myocardium. One of these patients had repeated attacks of paroxysmal auricular flutter, two had angina of effort and a sense of precordial oppression, and in one instance coronary occlusion occurred. In the absence of evidences of arteriosclerotic heart disease the symptoms referable to the heart were of a minor nature with only shortness of breath or palpitation being noted. The observations of Altschule showing that the cardiac work is not increased in uncomplicated polycythemia vera suggest that the cardiac damage does not result from the polycythemia alone.

Symptoms referable to the gastro-intestinal tract were present in twelve of the patients but these consisted of relatively mild indigestion and dyspepsia for the most part. In one instance a duodenal ulcer was present and gastro-enterostomy was performed because of pyloric obstruction. In a second patient the symptoms were suggestive of peptic ulcer and one rather severe gastric hemorrhage occurred although no ulcer could be demonstrated by roentgenograms. These patients had attacks of pain but never was it severe or persistent enough to suggest mesenteric thrombosis. In addition to the one patient with the duodenal ulcer which bled, there were others in whom less severe hemorrhage into the gastro-intestinal tract occurred, all manifest by melena without hematemesis.

Although symptoms of peripheral vascular disease occurred in some patients, in no instance was the polycythemia complicated by thrombo-angiitis obliterans. In one instance pain in the calves of the legs was produced by walking and relieved by rest, and three patients complained of a severe burning sensation of the feet so that erythromelalgia was suggested. Thrombosis of peripheral vessels occurred in three cases. In one there was thrombophlebitis of the superficial veins of the left thigh; in one the left popliteal vein became thrombosed; and in the third the anterior tibial artery base became occluded and amputation of the foot was necessary.

Hemorrhages occurred in nine patients. In four of these the bleeding occurred in the gastro-intestinal tract and in one a large spontaneous hematoma appeared in the right forearm. In the

others there was a mild epistaxis or bleeding from the gums.

Painful joints were found in six of the 25 cases but in two of these there was evidence of extensive osteo-arthritis. One patient had gout, and in two instances recurrent attacks of arthritis simulating the chronic rheumatoid variety had been present for thirteen and thirty years respectively. In none of these patients could the joint pain be directly attributable to the polycythemia vera. In the remaining patient, recurring attacks of swelling and pain occurred which suggested repeated hemorrhages into the joint spaces.

The most outstanding feature of the physical examination was the dusky red color of the face and mucous membranes. This peculiar color is not a true cyanosis but is due to the intense engorgement and distention of the capillary bed. Cyanosis develops readily in these patients because of the high hemoglobin concentration with the possibility of a large amount of reduced hemoglobin, but the bluish tint is lacking in the uncomplicated case. The conjunctivae are congested, a little swollen, and lacrimation is profuse. The small skin capillaries and venules are distended and prominent, particularly over the nose, cheeks, and neck. Various sized ecchymotic areas may be found and hematomas are frequently encountered.

The spleen was enlarged in 19 (76 per cent) of the cases and varied from an organ which was barely palpable to one which extended a hand's breadth below the costal margin. The liver was enlarged in eight (32 per cent) of the cases but in no instance was it markedly enlarged. The blood pressure was elevated in 15 (60 per cent) and in five of these there was cardiac hypertrophy. The highest blood pressure reading was 195/125 but in nine cases the reading was in the neighborhood of 170/110. Electrocardiographic changes were present only in those patients with arteriosclerotic heart disease and were of the type to be expected in this disease. Definite evidences of arteriosclerosis of either the peripheral or retinal vessels were found in 14 of the patients. In addition to these vascular changes, the fundi were frequently deep red in color and the veins markedly engorged.

The erythrocyte counts in these patients ranged from 6,450,000 to 13,000,000 with 16 cases having 8,000,000 or more red cells. The hematocrit values were also high, being above 65 in 76 per cent of the cases, and 70 or above in 42 per cent. The highest value was 77. The hematocrit reading indicates the percentage of the total blood volume made up of packed erythrocytes, and this feature accounts for the increased viscosity and in-

creased specific gravity of the blood, so that those having the highest hematocrit reading had the greatest vascular distention and slowest blood flow and therefore the most symptoms from the disease. The hemoglobin values ranged from 17 to 25.4 grams per 100 cubic centimeters of blood with 21 of the 24 untreated cases having 18 or more grams. The color index remained about normal or slightly below, as did the volume index.

The leukocyte count was above 10,000 per cubic millimeter in 84 per cent of the series, the highest total count being 40,000. On the blood smear the percentage of neutrophils was increased, the number of non-segmented neutrophils was greater than normal and an occasional myelocyte was encountered. The greatest evidence of immaturity of the cells was usually encountered in those patients with the highest total leukocyte count, although this did not always hold true since the patient with the highest percentage of myelocytes (6 per cent) had a leukocyte count of 19,300. Only an occasional nucleated erythrocyte was encountered, but in 50 per cent of the patients on whom reticulocyte counts were made they were elevated above normal, the highest being 6.2 per cent.

The platelets were increased in 15 of the 23 cases in which platelet determinations were made, but there was no correlation between the increase of platelets and the height of the erythrocyte or leukocyte count. By volumetric determination there were five cases with platelets above 2 per cent (normal 0.4 to 0.6 per cent), but spontaneous thromboses were no more frequent in those patients with high platelet determinations than in the others. The clot retractility was usually absent or poor, a feature that is probably due to the excessively high hematocrit values. The bleeding time and coagulation time were usually normal and in only one instance was the fragility of the red cells increased.

Basal metabolic rates were obtained in ten patients and the results were within normal limits in all but two instances. These were +17 and +58 respectively. Albuminuria was present in eleven of the patients.

Reports have appeared in the literature of cases of polycythemia vera which have ultimately developed features of myelogenous leukemia and other instances which developed a severe anemia. We encountered none in which myeloid leukemia developed, but one patient who received a large amount of irradiation ultimately developed an anemia of an aplastic type. This sixty-four year old patient was first seen in 1932 with 20.5 grams of hemoglobin, 10,830,000 erythrocytes, and 33,-

000 leukocytes. The hematocrit reading was 77 and the platelets, 2.5 per cent. From 1932 to 1935 he was admitted to the hospital on twelve occasions and received x-ray therapy to the bones, usually 200 to 300 R to localized areas, so that he received a total of 7,900 R during that period. He was not seen for three years, but in 1938 he returned to the hospital with a blood hemoglobin of 4.6 grams, 2,100,000 erythrocytes, hematocrit reading 16, and 3,600 leukocytes. A differential count on the last admission showed 82 per cent lymphocytes, 11 per cent neutrophils, 4 per cent myelocytes, and 3 per cent blast cells. The platelets were 0.075 per cent, the clot non-retractile, and the bleeding time prolonged. This picture suggests aplastic anemia, but the myelocytes indicate myeloid stimulation. It is probable, that this resulted from the irradiation rather than from the polycythemia.

Necropsy examination was performed on only one case in this series. The patient was admitted to the hospital because of severe headache, right hemiplegia, aphasia, and mental confusion. Laboratory studies showed an erythrocyte count of 10,500,000, hematocrit reading 75, hemoglobin 24.5 grams. He subsequently developed streptococcus infection of the throat followed by bronchopneumonia and pulmonary edema. At autopsy the meningeal and pial vessels were distended and two cerebral vessels were thrombosed with areas of cortical softening to account for the neurologic findings. The bone marrow was hyperplastic with involvement of both the erythrocytic and leukocytic elements. No evidence of vascular thickening could be detected in the bone marrow. There was distention and congestion of the vascular system everywhere, with marked engorgement of the spleen, atrophy of liver cells, and congestion of the kidneys with no thickening of the vessel walls. There was a moderate degree of arteriosclerosis of the aorta.

The treatment in these cases varied. In the earlier cases phenylhydrazine was used. Results of this therapy were slow in their appearance and less satisfactory than the methods now used. Venesection, with removal of 500 cubic centimeters of blood each day or every other day until the erythrocyte count and hematocrit reading approach normal values gives immediate subjective relief and lessens the danger of spontaneous thrombosis. Mental confusion, fullness of the head, and headache may be immediately relieved by this means, and the efficiency of the circulatory system is improved. This treatment by itself may result in prolonged remissions. It has been stated that removal of blood results in a stimulation of the bone mar-

row, but if this occurs the degree of stimulation is inconsequential and does not contraindicate venesection. This therapy is best combined with irradiation to those bones which are active in hematopoiesis: the proximal ends of the long bones, the sternum, ribs, vertebrae, and pelvis. These areas may receive from 200 to 300 R during the first course of treatment with further therapy depending upon the rate of erythrocytic regeneration. The spleen should not be irradiated since it is the organ primarily concerned with removal of erythrocytes from the circulation. Spray therapy or total irradiation has been advocated and consists of relatively small doses of x-ray from a distance of 2 to 2.5 meters applied to the entire body. Excellent results from the use of this technic have been reported.¹⁰

The use of radioactive phosphorus¹¹ is the most recent therapeutic procedure but is still in the experimental stage. This material becomes concentrated in the bone marrow where it is most effective and has the added advantage of oral administration and an absence of irradiation sickness. It is not yet available in sufficient quantities for general use, but the preliminary reports are exceedingly promising.

The best method of therapy at present is repeated venesection combined with irradiation of the hematopoietic centers. Venesection may be performed as often as necessary, and subsequent courses of irradiation may be given when erythrocytic regeneration becomes too rapid. Satisfactory and prolonged remissions may be produced by this method of treatment.

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HEART DISEASE AND PREGNANCY*

EDWARD W. ANDERSON, M.D., Des Moines

Late in the nineteenth century James Mackenzie was "summoned one night to help a young woman in the pains of childbirth." She was a patient of his own, a girl whom he had visited during the period of her expectancy and whom he had then examined. The case promised to be easy and uneventful.

"As he assured the girl's mother and husband that all was well, during one of the great silences that falls after the pain has passed, a dusky hue overspread the girl's face. Suddenly he started from his chair, his face pale and his eyes fearful. The girl was dead. She had died of sudden heart failure." James Mackenzie, as he turned to break the news of her death to her husband, tasted the bitterest anguish which any doctor can ever experience.

An hour later, as he asked himself whether the girl, before the time of delivery, had shown signs or symptoms which might have served as warnings, he resolved to study in women the mechanism and history of the symptoms usually supposed to indicate heart trouble. It was thus that Mackenzie became a heart specialist. His studies began after he had ransacked the literature of that day—to no avail. Since then, many have become interested and there has been much work done on the subject of the heart in pregnancy.

Pregnancy somewhat increases the blood flow and the work of the circulatory apparatus. It is estimated that the work of the heart is about 25 per cent greater during pregnancy than during the puerperium. Studies of pregnant women in New England have shown that about 2 per cent of all cases have heart symptoms or signs.

Through many sources the incidence of heart disease in the pregnant woman appears to be about 1 per cent in the areas which manifest the greatest interest in the problem. The recorded death rate varies but is definitely declining as the management of these cases improves. It has become nearer 2 per cent from an original figure of 8 to 10 per cent. The estimated deaths in relation to the total number of births average about 50 per 100,000, an index which also is decreasing with time.

The large majority of pregnant women with real heart disease have chronic rheumatic valvular defects. Congenital defects (1:5,000), luetic aortitis, hypertension, subacute bacterial endocarditis (1 per cent) and thyrotoxicosis are relatively rare

with pregnancy, making up less than 10 per cent of cases of heart disease in pregnancy.

Heart disease ranks among the four or five most important causes of maternal deaths. It accounts probably for approximately 7 per cent of all fatalities and claims close to 1,000 women per year in the United States.

Many signs and symptoms suggestive of heart disease may be seen in pregnancy even when the heart is normal. This has necessitated the use of a preliminary diagnosis of "possible heart disease." Dyspnea, tachycardia, and edema have a relative value. They may be produced by pregnancy, but in the presence of heart disease they indicate that the damaged heart is becoming embarrassed. Cardiac enlargement is of diagnostic value only when it is definite. Murmurs are of real value only under certain circumstances; a presystolic murmur at the apex and a diastolic over the aortic area are most suggestive. Systolic murmurs must always be considered in relation to other findings. Arrhythmias are of the same diagnostic value in pregnancy as those apart from pregnancy. A history of rheumatic fever is suggestive. Heart failure should be suspected in the earliest signs of cardiac embarrassment because it is of the greatest therapeutic value to recognize it early. A prenatal or postpartum pulse rate over 110 and respiration of 24 are suggestive of early heart failure.

A correct estimate of the prognosis is of great importance, but it is as difficult as it is important. Twenty-seven years ago Kellogg made this statement: "We know that we do not know what any given heart will do in pregnancy or labor until it has done it. We have seen a completely decompensated cardiac survive two eclamptic convulsions and an accouchement force; we have been told by first rate internists that this woman will stand delivery—and she dies on the table; we have been told that this woman seen at the fourth month by a competent internist will go through pregnancy well—she is on edge from the fifth month on, gets acute cardiac dilatation in labor, has a severe postpartum hemorrhage which first saves her life and then threatens to kill her, has her uterus packed; we are told she will die; she lives to go moderately septic; she does not die; we are told she will always be an invalid—she brings up a baby beginning four weeks later, and six months afterward is looking after her baby, her husband and two brothers, teaching three classes of stammerers not to stammer, lives in a seven room apartment which is always clean, and considers a maid servant unwarranted extravagance." The difficulty in prognosis of heart disease in the pregnant patient is still strikingly true.

*Presented before the Ninety-Third Annual Session, Iowa State Medical Society, Des Moines, April 20 and 21, 1944.

There is no playing safe in obstetric cardiology, for no child should be needlessly sacrificed out of excessive consideration for the mother, and too great reluctance to interfere may be disastrous to her, sometimes without benefit to the child.

The functional capacity of the heart is one of the best prognostic indices. The classification of heart disease based on the functional ability of the patient recommended by the American Heart Association is as follows:

Class I—Patients suffering from organic heart disease able to carry on ordinary physical activity without discomfort.

Class II—Patients suffering from organic heart disease unable to carry on ordinary physical activity without discomfort.

- a. Activity slightly limited.
- b. Activity greatly limited.

Class III—Patients suffering from organic heart disease showing definite symptoms of heart failure when at rest.

Applying this functional classification to pregnant cardiac patients, it may be stated that patients in Classes I and II-a have a good prognosis, those in Class II-b have a guarded, and those in Class III have a poor prognosis.

As I have stated, the death rate from heart disease and pregnancy has fallen from 8 to 10 per cent to 2 to 3 per cent, which is at least three times as great as the present gross maternal death rate in the United States.

Congestive failure is a factor in at least 70 per cent of the cases fatal from this complication of heart disease and pregnancy. A large number of the remainder die from pulmonary causes, including pulmonary edema. Occasionally, patients die from cardiac exhaustion or sudden collapse. The incidence from sepsis is also above what would be expected, but there is no evidence that the death rate from eclampsia is increased by heart disease.

Congestive failure is by far the most important cause of death in pregnant cardiac patients, although the majority of them who develop this complication recover compensation. Most of the deaths occur during pregnancy, although the incidence is highest during labor. The tendency to failure increases as pregnancy advances. Overwork and infection are important precipitating causes. The earlier that congestive failure occurs, the worse the prognosis. It advances faster in pregnant women. About 75 per cent of fatal cases survive delivery, but at least half of these patients deliver prematurely before they die. The death rate is low during the early months of preg-

nancy, but shows a distinct increase about the seventh month.

The older the cardiac pregnant woman, the less favorable the prognosis. The prognosis is adversely affected by increase in the size of the heart. The data on the significance of mitral stenosis on the prognosis is most confusing, but the general thought is that it is less favorable. While no danger seems to attach to isolated aortic lesions, the presence of combined mitral and aortic lesions adds materially to the gravity of the prognosis. If auricular fibrillation is a late complication of advanced valvular disease of the heart, it is of serious prognostic importance. Patients with adherent pericardium, although they usually come to grief during the strain of labor or soon after, have successfully accomplished pregnancy and childbirth. There is no evidence that childbearing exacerbates rheumatic infection or hastens any pathologic process in the heart, but it may accelerate the onset and development of congestive failure by adding to the load of the circulation.

Heart disease per se does not favor prematurity, but congestive failure predisposes to premature delivery and encourages infantile mortality.

Complications of valvular disease of the heart occasionally modify the regular clinical picture. Congestive failure may be associated with acute rheumatic changes in the heart, especially in the young. Acute endocarditis has been found in a high percentage of fatal cases of heart disease and pregnancy. Evidence is lacking that toxemia affects rheumatic heart disease and pregnancy unfavorably. Renal changes found in fatal cases of heart disease and pregnancy are difficult to distinguish clearly from those caused by congestive failure, toxemia, or nephritis. There is an increasing tendency for embolism during labor and the first twelve hours after to occur in the presence of auricular fibrillation, congestive failure, and as a complication of bacterial endocarditis.

Pulmonary edema, a most dreaded complication probably due to the mechanical causes of left ventricular and auricular failure, is especially prone to occur during labor or the first twelve hours after and attacks mostly younger women who have combined mitral and aortic lesions. The death rate is high, about 60 per cent. Valvular disease of the heart increases the incidence of pneumonia in pregnancy, both as a complication and as a cause of death. Tuberculosis, or anemia, unless very severe, rarely affects the prognosis unfavorably. Obesity obviously handicaps valvular disease at all times and especially when the diseased heart must carry the extra load of pregnancy. No evidence has been obtained that valvular disease of

the heart is associated with an increase in the death rate from puerperal sepsis.

In the management of the pregnant cardiac patient, we shall first consider the advice given concerning pregnancy in the cardiac individual. Advice as to marriage and pregnancy should be given when heart disease is first diagnosed, and as to repetition of pregnancy, during the puerperium. This advice has become more lenient than formerly for several reasons. Improved prenatal care has greatly reduced the death rate from heart disease and pregnancy. During compensation strict and frequent supervision is indicated. Bed rest should be advised only insofar as it improves cardiac tone. Decompensation should be treated early and thoroughly, and not until treatment has failed should pregnancy be interrupted. The treatment of interruption of pregnancy has gone through a wide cycle during the past hundred years. First strongly opposed, with the rise of antiseptic surgery it became too freely used. It should now rarely be performed and only in those cases in which the patient does not respond to the treatment of heart failure, and when possible it should be deferred until the thirty-sixth week, when the chances of the infant are so much better. Social factors, while important, should not be confused with the medical aspects. While acute pulmonary edema is a contraindication, the other complications, mitral stenosis being no exception, are not absolute indications for the interruption of pregnancy.

There is no convincing evidence that the duration of labor is affected by the presence of heart disease. As long as there is no evidence of cardiac embarrassment, there is no reason to modify routine procedures of labor, except that the patient should be supervised with more than usual care. The semirecumbent position is indicated in case of dyspnea, but not routinely. Cardiac symptoms arising during labor require the prompt use of digitalis. If the symptoms progress, forceps delivery is indicated late in labor, cesarean section early. Since 1900, the use of cesarean section has been greatly developed, but the trend in America is toward a conservative attitude. If performed before labor is far advanced, it is the safest way of relieving an embarrassed heart of the strain of labor. The chief danger to the mother is sepsis, to the baby asphyxia. Cesarean in mortua has saved many babies of cardiac mothers if performed within twenty minutes of the mother's death, and may be successful as early as the twenty-fourth week of pregnancy. Pulmonary edema arising during pregnancy should be treated with morphine, venesection, and digitalis. Sterilization is indicated in heart disease when a woman

has had as many children as she can physically manage. Lactation should be avoided only when cardiac failure threatens and all means must be employed to conserve cardiac strength.

SUMMARY

1. The incidence of heart disease in pregnancy is about 1 per cent.
2. Chronic rheumatic valvular defects occur in the greatest majority of cardiac pregnant women.
3. Congestive failure is the most important cause of death in the pregnant cardiac patient.
4. The prognosis is most difficult, but the functional capacity of the heart is the best prognostic index.
5. Treatment of cardiac failure should be instituted early and thoroughly.

ANNUAL CONVENTION OF AMERICAN PSYCHIATRIC ASSOCIATION CANCELLED

The American Psychiatric Association, the oldest medical society in America, has announced the cancellation of its 101st annual meeting, which was to have been held in Chicago in May of this year. It was the feeling of the Association that it would be the duty of the membership to fall in line with the request of the United States Government to cancel conventions in the spirit of the war cooperation.

There will be a meeting of the Councillors of the American Psychiatric Association on February 26 and 27 to devise the means of taking care of urgent business of the Association arising out of the cancellation of the annual meeting.

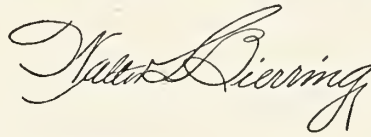
CORRECTION

The JOURNAL is pleased to publish the following letter received from Dr. Walter L. Bierring relative to a statement carried in the December issue of the JOURNAL on page 507:

"May I ask the correction of a statement that was taken from my informal talk at the House of Delegates luncheon November 1, 1944?

"The statement as printed is 'Dr. Mountin was assigned to a station in India for three years.' This was based on hearsay and was not correct, as I have since learned that the negotiations to send Doctor Mountin to India were instituted at least three months prior to the American Public Health Association meeting, and his detail was made in response to the request of the British Government in behalf of the Indian Medical Service which desired to consult with Doctor Mountin concerning public health administration in the United States. The detail was for three months, not for three years, and Dr. Mountin was returned to the United States and is now engaged in his usual duties as Chief of the Division of States Relations, U. S. Public Health Service, Washington, D. C."

STATE DEPARTMENT OF HEALTH



SALMONELLOSIS OUTBREAK TRACED TO IOWA

Members of the crew of a merchant ship which started from Norfolk, Virginia, became ill with gastro-enteritis in January, 1945, shortly before arrival at New Orleans, Louisiana.

Investigation of the epidemic was made by James Watt, M.D., Surgeon, U. S. Public Health Service, stationed at New Orleans. Laboratory examination of rectal swabs from patients and others who had been exposed led to isolation of a *Salmonella* organism, a strain which proved to be *Salmonella montevideo*. Investigation of water, milk, and food supplies revealed that mayonnaise dressing was the probable vehicle of transmission, and that eggs used in the mayonnaise were the probable source of contamination.

Bacteriologic study was made of the yolks of eggs, several crates of which remained from the supply of provisions taken on at Norfolk. Eleven of fourteen flasks containing pooled yolks of a crate of eggs were found to harbor *S. montevideo*, the same *Salmonella* strain which was found to have caused the illness. (The isolation of *Salmonella* from the egg yolk is traceable to infection in the ovary and oviduct of the hen, infection being transmitted congenitally to the eggs.)

Dr. Watt learned that the eggs which were taken aboard at Norfolk had been processed and kept under constant refrigeration aboard ship. The eggs were purchased from a produce dealer in Creston, Union County, Iowa. Dr. Watt visited the Iowa State Department of Health, January 27, 1945; he then went to Creston where the following two weeks were spent in search of the particular strain of *Salmonella* organism incriminated in the New Orleans outbreak.

A mobile trailer-laboratory equipped for bacteriologic work was made available through the district office of the U. S. Public Health Service in Kansas City, Missouri. Petri plates and other supplies as needed were furnished by I. H. Borts, M.D., Director of the Iowa State Hygienic Laboratory in Iowa City. Dr. Watt was ably as-

sisted by Captain Cecil B. Chambers, bacteriologist, and two laboratory helpers.

During the stay in Creston visits were made to approximately 150 producer-farms from which eggs are delivered to the processing plant in Creston. Inquiry in the farm homes elicited no unusual history of enteritis affecting human beings or of infection in poultry flocks.

Bacteriologic work was confined to the study of cloacal cultures taken from individual hens or from fresh droppings in poultry houses on different farms, and to culture of the yolks of eighty dozen eggs, these eggs having been discarded as the result of candling and because of their content of blood.

The staff members of the U. S. Public Health Service succeeded in isolating several strains of *Salmonella* from the material cultured; the *montevideo* strain had not been identified with certainty at the end of the two weeks' survey.

The bacteriologic study of eggs from the Creston, Leon, and Osceola areas is being continued in the Public Health Service Laboratory in New Orleans. Arrangement has been made in cooperation with produce dealers whereby eggs from various farms will be shipped from time to time to the Louisiana laboratory.

BRUCELLA AGGLUTINATION SURVEY AMONG VETERINARIANS

On January 23-24, 1945, in cooperation with officers and members of the Iowa Veterinary Medical Association, and on the occasion of the annual meeting of that organization, blood specimens were secured from 133 veterinarians who served as volunteers. The specimens were forwarded to the State Hygienic Laboratory in Iowa City, where agglutination tests were carried out on the blood serums.

Of 132 serum specimens examined (one specimen had serum in amount insufficient for testing), three showed positive agglutination of brucella antigen, two in a dilution of 1:40 and one, 1:80.

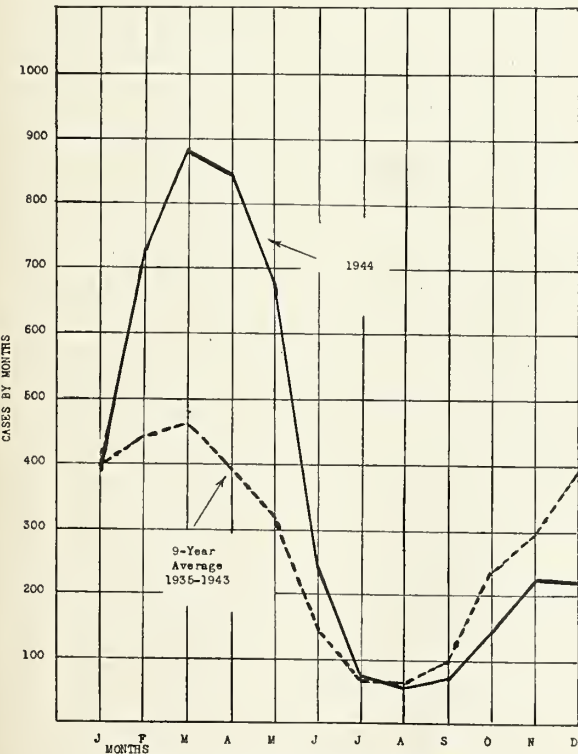
These titers, although not strongly positive, are considered definite evidence of exposure to brucella.

The incidence of positive agglutination in significant dilution in the recent survey was 2 per cent. In a similar study of the blood serum of Iowa veterinarians made fifteen years ago, in January 1930, four of 120 specimens showed reaction in a dilution of 1:40, a significantly positive agglutination incidence of 3 per cent.

SCARLET FEVER—1944

Reported cases of scarlet fever in Iowa totaled 4,530 in 1940, an annual morbidity rate of 178.5 per 100,000. In the nation as a whole, reported cases for 1944 numbered 190,306, an annual morbidity rate of 144.5 per 100,000 population.

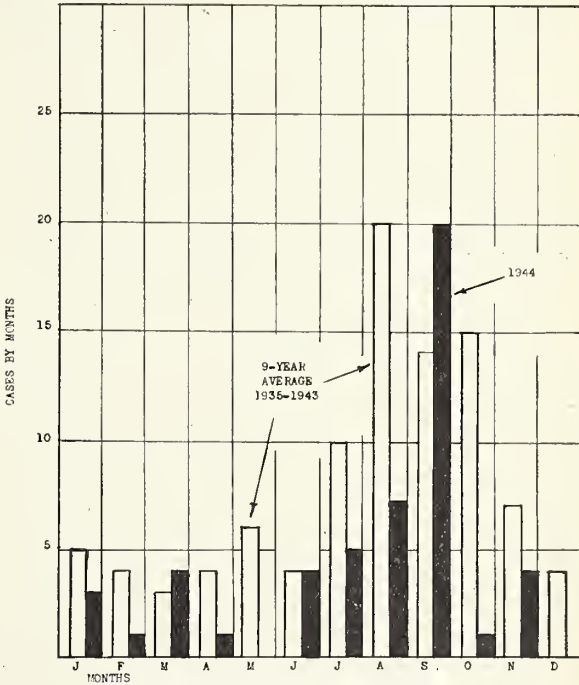
In the accompanying line diagram, the solid line shows cases of scarlet fever as reported to the State Department of Health by months in 1944. The dotted line indicates cases which were expected to be reported month to month during 1944, being the average of scarlet fever reports for the past nine years, 1935-1943. As noted in the graph, scarlet fever was unduly prevalent throughout February, March, April, May, June, and July of last year. On the other hand, case totals for the re-



SCARLET FEVER IN IOWA—1944
Reports by months compared
with the 9-year average 1935-1943

maining months, August through December, were below the expected average.

In January of 1945, reported cases of this disease were 389 (expected number 395). Reports numbered 134 for the first two weeks of February, 436 being the expected total for the entire month.



TYPHOID FEVER IN IOWA—1944
Comparison of month-by-month reports
with the monthly average for the period 1935-1943

TYPHOID FEVER—1944

With the exception of September, typhoid fever showed below average prevalence for the other eleven months of 1944. Fifty cases were reported for the entire year, the expected total being 96, the annual average for the nine-year period 1935-1943.

The accompanying line graph records the cases of typhoid fever as notified during 1944 (solid line), compared with the expected number (dotted line), the latter based on the experience of the past nine years.

The sharp rise in prevalence in September of last year was due to the outbreak of typhoid fever which occurred at Brayton (Audubon County) and vicinity. Out of the total of 20 cases notified in September, 18 of the patients were victims of the epidemic, of whom 15 resided in Audubon County, two in Cass, and one in Guthrie County.

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NURSE RECRUITMENT FOR MILITARY SERVICES

Something seems to have gone decidedly wrong in the procurement of a sufficient number of graduate nurses to meet the needs of our armed forces. So acute has the shortage become that President Roosevelt on January 6 requested Congress to enact a law permitting the immediate drafting of nurses so that quotas could be met.

According to the Fact Sheet prepared by the National Nursing Council for War Service in cooperation with a number of other groups, the emergency needs of the Army are for 18,000 nurses in addition to the 42,000 already in service, 2,335 for the Navy in addition to a present strength of 9,165, and for 3,000 additional nurses to the 4,150 on duty with the Veterans Administration. This adds up to a total of 23,335 nurses who are urgently needed at once, or will be needed within the immediate months ahead, to care for our sick and wounded fighting men at home and abroad. The statement is made that Army hospitals here are operating with as few as one nurse to twenty-six beds while the authorized ratio is one nurse to fifteen beds in the United States and one to twelve overseas.

This is a serious situation indeed and one of immediate interest and concern to all physicians, hospitals, and industrial institutions since these groups are largely involved in the employment of nurses. No argument is needed to sell any of us upon the fact that our sick and wounded fighting men have first call upon the total available supply of trained nurses. That their needs must be met is taken for granted, and we feel sure that there will be earnest and prompt cooperation from all sources to see to it that the existing shortage is promptly eliminated.

But what interests us is the reason why any shortage, or perhaps such an urgent shortage as would make it necessary to send eleven hospital units overseas without any nurses at all, has been allowed to develop. Publicity of the last few weeks has tended to create the impression in the minds of the general public that the fault lies with the nurses for not volunteering—in other words that they as a group are unpatriotic. Our sense of fair play impels us to arise to the defense of our sister profession against such an impression. Can it not be that equal or even greater culpability rests elsewhere? And if so, ought it not to be frankly admitted by those officials in high places to whom has been assigned the responsibility of nurse recruitment? For instance there is the statement of Katherine J. Densford, president of the American Nurses Association, made before federal officials at hearings in Washington and published in the Des Moines Register to the effect that, "The shortage of military nurses is at least partly the fault of the armed services themselves, because they set quotas, raised them, lowered them, and raised them again until the nursing profession didn't know how many nurses were required." And further, "There never has been a full scale federal effort to recruit nurses. Most of the job to date has been done by the nurses themselves voluntarily and without pay. The government's contribution to the program was to provide for about sixty-five clerical workers throughout the whole country. The War Manpower Commission and the Red Cross, cooperating as they have in the past and aided by enough federal money and authority to put on a recruiting drive as intensive as those for the WACs and WAVES could fill military nursing needs without a draft."

What about the Cadet Nursing Corps? It was our impression that this was a well conceived and efficient plan for filling quotas as the need arose. According to the Fact Sheet there were 24,821 Senior Cadets in 1944-45. The total number of Senior Cadet Nurses applying for federal service from April through December 1944 was 10,168. The total referred to federal service in this same period was 8,923 and the total accepted by federal service was 1,931. No reason for the large number of rejections is given. It seems permissible to ask why, if the government is financing the nursing education of these girls, they were not given physical fitness examinations before being accepted and why they were not enrolled for military duty exclusively following graduation and successful passing of State Board examinations? Had some such arrangement as this been set up would it not have obviated the necessity of subjecting the nursing profession to

the humility of being the only group of women in the nation singled out for drafting?

Again it seems only reasonable to inquire into the status of the 8,169 male nurses and the 9,000 colored nurses, both groups of whom have had the same basic training as the white female nurses. Male nurses by law are not commissioned in the Army Nurse Corps, although between 2,000 and 2,500 of them are serving in the armed forces in some capacity or other but not as commissioned officers in the field of nursing. Only 308 of the total 9,000 negro nurses are enrolled in the Army Nurse Corps. Obviously eleven hospital units would not have had to be sent abroad without nurses if these sources had been utilized.

Naturally those of us who live in Iowa are interested in what our home state has done in the way of nurse recruitment. The following information was provided the JOURNAL by a reliable source. In 1943 the total quota assigned Iowa was 353. Enrollment was 504. From January 1, 1944, through June 30 the quota was 92, and the number assigned was 153. From July 1 through January 31, 1944, the quota was 153, and 94 nurses were assigned. Thus a deficit occurred in the latter half of 1944, but the total quota for the year was 245, and the total assignment was 247. For the first six months of 1945 a total of 292 nurses will be required. So far only 30 of this number have been obtained. From January 1, 1943, to January 1, 1945, the number of successful candidates in the Iowa State Board examinations was 1,196. In the same period of time 781 registered nurses entered military service from this state.

Regarding recruitment of nurses in other parts of the country we are informed that so far the greater number of nurses in military service are being enlisted from the North Central, Central and Southern states. These states are meeting their quotas and making up for the Eastern and Western states in which quotas have not been reached.

Presumably by the time these comments are published the matter of selective service legislation for drafting of nurses will have been settled by Congress. It is the JOURNAL's hope that it will not be necessary to resort to such legislation unless the nurses are included in a general National Service Act. We have every confidence in the patriotism of the nursing profession, and we believe that military officials and the officials of the Procurement and Assignment Service for Nurses should assume their full share of responsibility for the present shortage of nurses in the armed forces. If the recruitment program as set up by the Army and Navy, the War Manpower Commission, and the American Red Cross has failed and a selective service law becomes necessary to meet the present critical emergency, then a full public explanation

of the reasons for the failure of the volunteer method is only just and right. Our criticisms have only to do with this phase of the problem. We would again make it clear that the needs of the men who have been wounded in battle or who have become ill while on military duty are of first concern to every one of us. We are in complete accord with any method which becomes necessary to ensure adequate nursing service for these boys, but let's have the facts about why a nursing shortage for them was ever allowed to develop.

STATUS OF THE MEDICAL SERVICE PLAN

No formal report has been made on the status of the medical service plan since publication of the minutes of the special meeting of the House of Delegates in the December JOURNAL. Work has gone forward constantly since that time, however.

The Legislative Committee prepared an enabling act to present to the Legislature which would make possible the formation of a non-profit corporation for medical care. This was passed by both the Senate and House of Representatives without a dissenting vote, an indication of the favor with which it was received by the legislators. It also received much favorable publicity in newspapers over the state. Governor Blue signed the bill February 15, and now all that remains is publication, after which it will become law.

The Executive Council held two meetings to appoint a temporary board of directors to help with writing the contract, establishing a fee schedule, and obtaining the articles of incorporation. This board has also met and appointed various committees to carry on the work.

The contract committee has had several meetings to discuss the best type of contract, and is now ready to submit its final draft to the executive committee and the board. The fee schedule committee has also met and established a fee schedule in accord with the contract and the proposed rate structure. This also is ready for submission to the executive committee and the board.

It is expected that the executive committee will meet in the very near future and pass upon these matters, after which the board will meet to give its approval or disapproval of the recommendations. The executive committee has also as its duty the hiring of personnel for the new company, renting office space, and procuring equipment. All of this is receiving the attention of those who are working on the plan.

All in all, those directly responsible for the plan have worked steadily upon it since the House of Delegates meeting November 1. Three lay members of the board have contributed largely of their time and thought in writing the new contract

and deserve the sincere thanks of the medical profession for the study they have given it. When the contract is finally written and the plan is ready for presentation, it will represent countless hours of thought and effort to make it the best possible plan for the subscribers and the medical profession which is offering it. Soon it will be time for the rank and file of our state membership to do its part in cooperating with the plan to make it the success which our committees have given their best efforts to ensure. The JOURNAL trusts we will not disappoint them.

PREVENTION OF WHOOPING COUGH IN EARLY MONTHS OF INFANCY

The development of an effective prophylactic agent against whooping cough marked a definite advance in the control of this disease. However, a problem still remained in that it is recommended that the vaccine be administered in the second six months of life, whereas the chief mortality from the disease occurs in the first half year of life. In an effort to find a solution to this phase of the problem, Sako et al. report in the February 17 issue of *The Journal of the American Medical Association* their experiences with alum precipitated pertussis vaccine given to infants three months of age or younger. The authors state that their primary purpose in the study was not to evaluate the prophylactic value of the vaccine but rather to study the reaction of infants three months of age or younger to parenteral injection of the alum precipitated vaccine and the antibody response as measured by agglutination tests of these young infants so inoculated. Previous studies had indicated that good antibody response to pertussis vaccine was not likely to result until after the age of seven months. The authors inoculated a total of 3,793 infants with alum precipitated Hemophilus pertussis vaccine in monthly dosages of 0.2, 0.3, and 0.5 cubic centimeter. The vaccine contained forty billion bacilli per cubic centimeter. Observations were made on reactions to these inoculations and to the subsequent development of agglutinins for Hemophilus pertussis. Also, some attempt was made to observe the incidence of whooping cough and the mortality in a portion of this group (1,834), as compared with 1,965 non-immunized infants, for a period of twelve to twenty-seven months. Concerning the reaction, the authors state that of a total of 6,600 inoculations in the first group 568 infants, or 8.6 per cent, showed appreciable reactions, but only 48 of these reactions exceeded a moderate degree of severity. Forty-nine patients reacted to two inoculations and six patients reacted with each inoculation. A total of 38 abscesses occurred in

group A; all of these subsided without special treatment. The authors conclude that young infants tolerated the inoculations extremely well, and from their studies they feel that there is no contraindication on the basis of reactions to the giving of alum precipitated pertussis vaccine in the dosage recommended to infants under three months of age.

Agglutination tests showed that 78.2 per cent of the 1,834 infants in group A gave moderate or strongly positive agglutination tests two to four months after completion of immunization, and that most of these infants maintained their positive agglutination titers for at least two years. In this group of infants who were followed for twelve to twenty-seven months some thirty developed whooping cough with no deaths. In the control group of 1,965 nonimmunized infants 127 contracted whooping cough and there were thirteen deaths and thirteen who contracted pneumonia which was treated successfully. Thus there is definite evidence that pertussis prophylaxis using alum precipitated toxoid in monthly dosage of 0.2, 0.3, and 0.5 cubic centimeter is a practical procedure and that the mortality from the disease may be distinctly lessened. In discussing the paper, Sauer, originator of the present type of pertussis vaccine, indicated that since nothing is known as yet on the duration of immunology conferred so early in life it might be advisable to revaccinate later, perhaps at nine months of age, in order to secure a more lasting type of immunity.

IOWA SOCIETY FOR CRIPPLED CHILDREN AND THE DISABLED CARRIES ON

For thousands in America chained to ineffective bodies, their lives may mean heartbreak to themselves and to their associates. The number of the disabled will swell as men, maimed and crushed by war, return to America.

The Iowa Society for Crippled Children and the Disabled is dedicated to relieving, as far as possible, the tragedies of handicapped people. Its policies embrace provision of material assistance and service to the physically handicapped people from birth through maturity, regardless of the cause of the handicap. It cooperates with professional, lay, and governmental agencies without duplicating their programs, and is a clearing house for general information for the crippled available within the state.

The society is demonstrating a service that includes prevention, case-finding, treatment, special education, recreation, emotional adjustment, vocational counseling, and employment for the home-bound. It is a gigantic task and one that con-

stantly increases as new people learn of the service of the society.

The Iowa society is working hard to assure recognition of the handicapped child in the proposed revision of the Iowa School Code. It drafted a bill for presentation in 1943 which was the basis for the improved chapter included by the School Code Commission in its 1944 report. It is now working for the adoption of that bill which would provide special education for all handicapped children, employ qualified instructors for special instruction in day classes, schools, homes, hospitals, or other places of education. It urges special equipment and appliances for the handicapped child, special courses of study to meet his needs, and arranges with any school district a means for his transportation to the classroom.

It is impossible to enumerate the many varied services of the Iowa Society for Crippled Children and the Disabled. The Spastic Club of Iowa, with a mailing list of more than two hundred, received meeting summaries sent to all its members. A large loan library on cerebral palsy is also being used by the club members.

Fifty-one children of Iowa attended the society's special camp last year, a wonderful treat for children who have been forced to "be different" because of physical handicaps.

Planned home employment has released undeveloped talents and provided confidence to many a shattered cripple who too frequently has had little earning experience.

The society has carried on its program chiefly by sale of the Easter seals. The increased sale each year is an encouraging indication that public sentiment is awakening to the helpfulness of this program. It is only as donations reach the society in response to the campaign letter that the program can function and expand.

RED CROSS PROVIDES MOVIES FOR HOSPITALIZED

Although not widely known, one of the largest theatrical undertakings in the world is a chain of motion picture theaters operated by the American Red Cross in the Red Cross recreation houses at 196 Army hospitals throughout the United States. In addition to the programs at the recreation houses there are 407 hospitals where motion pictures are exhibited in the hospital wards on 16 mm. portable sound projection equipment. Last year audiences at these movie shows aggregated more than 10,000,000 men.

This department of the American Red Cross, known as the Hospital Motion Picture Service, was established in the fall of 1941 in order that soldiers in Army hospitals cut off from the great

G. I. pastime of movie-going, might be able to keep up with the latest in motion picture entertainment.

Through the cooperation of the motion picture industry, the Red Cross is able to show the boys in the hospitals the latest movies, sometimes even before the pictures are exhibited in commercial theatres. No admission fee is charged, and only



soldier patients and their attendants are admitted as audiences to these shows.

The Hospital Motion Picture Service is operated by a small group of men and women trained in the various aspects of this field and headed by Edward Doyle. In three short years they have whipped together an organization which plays to a total yearly audience of millions. They have overcome many obstacles in this era of wartime shortages—chief of which has been procurement of equipment. In spite of this, 167 theatres have been equipped with standard 35 mm. sound equipment, 29 with 16 mm. dual arc sound equipment, and 407 with 16 mm. portable sound units.

This Red Cross motion picture program, which started out as a purely recreational activity, has developed into one of the finest morale boosters in the Army. Many Army doctors praise its therapeutic value in its effect on men whose nerves have been frayed by war. The soldiers simply say, "It's swell of the Red Cross to bring movies to us."

This and other Red Cross services are made possible by the generous contributions of millions of Americans. The Red Cross is dependent entirely upon voluntary gifts to meet its many obligations, on the home front as well as on the battle front.

The 1945 Red Cross War Fund is being raised this month. Let's all give to the utmost of our ability to keep the Red Cross at the side of our fighting men.

A PROPOSAL OF MARRIAGE

VINCENT STARZINGER, LL.B., Des Moines

What I want to say to you tonight, in brief, is that the doctors and lawyers should unite in a special effort to help win the war. No, I do not mean the war in Europe and Asia, however important and vital that war may be; what I have in mind is the war of ideas which is back of the present military conflict.

Reduced to its most simple description, it is the war on individual freedom. Unfortunately, it is being waged with increasing effect by more and more people. Most of those who espouse this cause are undoubtedly well-intentioned. They have suffered disappointments or have observed imperfections and inequities which they desire to remedy. As so frequently happens, the most obvious and attractive remedy is a well promoted cure-all. The world constantly strives for a more easy way of life, not realizing that this is usually the road to atrophy and death. There are always leaders with ambition and ability who are not satisfied to build upon the sound foundations of the past, but have a burning desire to erect new monuments to their own glory. The present world catastrophe is due more than we realize to the blind following of leaders.

There is a strong tendency toward collectivism. In some respects this is highly desirable. There must be law and order by organized effort to insure individual freedom and to permit the highest development of the individual. Monopolies must be curbed or controlled, whether they be monopolies of business, labor, government, or majorities. It is also true that the state may do many things that would be difficult, if not impossible, for individuals to do, as, for example, the construction and maintenance of highways, parks, schools, libraries, and hospitals. Furthermore, there is no question but that society should take care of the indigent and disabled who are without means of support. It may even be sound policy for the state to assume the responsibility of providing minimum standards of subsistence. But this may all be done without destroying the doctrine of individual initiative and private enterprise.

The danger, of course, is that the trend toward collective action may be gradually and unobtrusively carried to the point where the individual has been swallowed up by the state, and the state is running everything, including the lives and the thinking of individuals. If that happens, we have lost our independence; we have lost our freedom.

We have become slaves of the party in power. This danger is tremendously increased by the industrialization of society, by the mammoth organization of business and labor, by the amazing integration of the world as a result of new inventions and the development of rapid means of communication and transportation, by economic depressions and by war. It will undoubtedly be accentuated by postwar conditions.

We are in danger of entering a push-button age in government. It may seem all right so long as the machinery functions and so long as the buttonpusher is a wise and just individual. But if the machinery becomes out of order or if some incompetent, some false prophet, some demagogue, or some lunatic gets his finger on the button, and we know that those things are bound to happen, then not only the individuals suffer, but the whole of society is wrecked.

A good illustration of what I am talking about is the Wagner-Murray-Dingell bill. When your president first asked me to speak at this meeting, I thought I would talk on socialized medicine, and I did a little special reading on that subject. However, it finally dawned upon me that you already knew more about that than I could hope to learn in the time I had for preparation, so I gave it up. Nevertheless, I am glad that I took the time to inform myself more fully on the issue. I had no conception of the far-reaching and detailed scope of the measure. It certainly abolished completely the practice of medicine as an independent profession. The doctors are to be congratulated upon checking this movement, and I am happy to be able to say that the American Bar Association helped.

The fundamental issue is whether individuals exist for organized society, or whether society is organized for the individuals. Is the government to be the master or the servant of the people? Should the individual have any rights that are good against all comers, including the chief executive officer, the legislative bodies, and even a majority of the people? Should the people be governed by laws, based upon experience and reason, applicable to all in similar circumstances, formulated objectively without regard for the interest of any person or group, predictable by all and framed to foster the maximum sphere of individual freedom of expression, choice, initiative, enterprise, and development, or should the people be directed by some central authority toward planned ends? Shall the future be de-

terminated by the countless decisions of individuals in a free economy governed by the rule of law, or shall it be planned by some centralized authority?

The correct decision on this issue requires the wisdom of the ages. It is easy to be led astray. The trend toward collectivism has led to socialism, communism, fascism and Naziism. This is the plain lesson of recent history. For half a century, the European intellectuals have been preaching the doctrine of absolutism in government, central planning, totalitarianism. And while we wage a global war against the direct results of such teachings, pouring out our precious treasures of resources, productive capacity and individual lives, we find British and American intellectuals embracing and teaching the same ideas.

I am abidingly convinced that a good society, a good government, economic prosperity and morality depend primarily upon the protection and development of the individual, the family unit, the local community, and the local state, ahead of the nation and the world.

The great contribution of nineteenth century liberalism was its appreciation of the worth and dignity of the individual. It recognized that the individual, not organized society or the state, was the basis of creation, variation, development, enterprise, freedom, character, morality and religion. It had the deep insight to realize that whenever a child is born, a new universe is created, and that child is the center of that new universe, and that new universe may be pretty much what that child makes it. It also had the practical sense to see that the crystallized customs and laws distilled from the infinite experiences and decisions of individuals in a free society were superior in the long run to any decrees or directives that might be issued by any centralized power.

When Patrick Henry said, "Give me liberty or give me death," he was not indulging in rhetorical flourish, but was announcing a vital election between two mutually exclusive basic conceptions of life.

Our republic was founded in this spirit of nineteenth century liberalism. Its founders were students of political and economic history. They were intellectual giants, who had tasted the bitter experience of centralized arbitrary authority. For two hundred years, the colonists had been governed by absolute authority in England. Parliament could make laws for them and tax them. The Privy Council at Westminster, either directly or through its boards, governed them, and exercised executive, legislative and judicial power over them. Governors were appointed by the Crown and controlled by the Privy Council. It is

true that the colonies had their provincial legislatures, but their legislative acts were subject to veto or review by the Privy Council, and the Privy Council was the final court of appeal. The powers centered in this body were often exercised arbitrarily. Pennsylvania was kept from having a system of courts for a period of twenty years. The board of trade and plantations prevented the establishment and fostering of industries in the colonies. Doctrines of primogeniture and inheritance were imposed, which were repugnant to the colonists. Thus, the vital necessity of constitutional government to protect individual freedom and local self-government, and to prevent the centralization of arbitrary governmental power anywhere, became quite clear. Today, after a lapse of a little more than one hundred and fifty years, it is easy to forget this background.

The men who set up our form of government undertook to protect and foster the rights and opportunity of the individual, even as against the government or the governmental officials or a majority of the people. They did this by adopting a written constitution embodying the fundamental law of the land. They put into the Constitution the Bill of Rights, guaranteeing certain fundamental rights to the individual. They separated the powers of government into the executive, legislative and judicial branches. They provided for a system of checks and balances to insure sober and deliberate action. They established an independent judiciary to declare and enforce objectively the rules of law. They put into effect the principle of federalism, whereby only specific limited powers were granted to the federal government, and all other powers were reserved by the local states.

I have no doubt that if we succeed in our effort to establish a world organization for the purpose of insuring peace and economic prosperity in the world, the principles adopted by our founding fathers will point the way.

Under this system, we have enjoyed a growth, a development, a productive capacity, and a standard of living unmatched anywhere, at any time, in the history of the world. The contribution that this nation has made in the present world conflict in resources, in productive capacity, in the preparation and mobilization of armed forces, and in heroic action, is truly a modern miracle. It furnishes the most eloquent testimony of the power, strength and character of a free people.

However, for more than a quarter of a century, our system of government has been questioned and attacked with increasing effectiveness in the interests of collectivism and absolutism. The

power of the executive has been enormously increased. The vitally important tradition limiting the presidential tenure to two terms has been disregarded. The principle of the separation of the powers of government has been undermined. Countless boards, commissions, and bureaus have been established. They exercise executive, legislative, and judicial powers, without adequate check upon their decisions by court appeal. It is now a common experience to witness such bodies acting as complainant, prosecutor, court and jury, in proceedings of an informal character, without the usual safeguards of judicial procedure. Executive decrees, orders and directives have been issued in such great numbers and on such a variety of subjects that even a good lawyer is frequently not only unacquainted with the rules, but does not know where to find them. Indeed, even the officials who are charged with the administration of the law lose track of them or are unable to keep up with them. The average citizen is helpless. As a practical matter, in many cases the expense of ascertaining and enforcing an ordinary work-day right is prohibitive. The individual is obliged to appeal to the official and meekly ask what he should do or refrain from doing. We are rapidly drifting into a system of administrative absolutism which is derived from the European idea. The people are losing control of their government. Our independent judiciary has been weakened and has lost respect. Its jurisdiction has been relatively narrowed. Incidentally, more than two-thirds of our federal judges have already been appointed by one executive, and too often the appointments have been influenced by political considerations. Our legislative bodies have been smeared and subordinated. They are called upon constantly to legislate in the interest of special groups without the aid of any crystallized general public opinion. No legislative body is equal to such a task. There is a growing impatience with our system of checks and balances, which was calculated to prevent governmental action unless it was supported by the considered opinion of the people. The Constitution has been stretched to the breaking point. The national government has taken over control of countless phases of our lives which a few years ago were considered purely local. The citizen now, instead of turning to his local city, county or state government, looks more and more to Washington. The people are being encouraged to depend more and more upon the government. The local governments are being made more and more subservient to the central government. A government far away seems better than one close at hand. The fact that what the government gives to the people, the govern-

ment must take from the people, is overlooked. The fact that wealth is produced by individual effort and accumulated resources, rather than by governmental division or printing, is ignored. Government loans and subsidies for special interests have become commonplace. The government has undertaken the detailed regulation of private competitive business, and in many instances has itself engaged in private business. The individual and private enterprise are rapidly being shackled and enslaved by the governmental officials in power, who are gradually assuming the rôle of masters, charged with the duty of planning the political, economic, and social lives of the people.

Such a trend, if unchecked, leads inevitably to the complete enslavement of the people. Under such a system, what is the criterion for decision? It cannot be on the basis of equality, because, while under our theory of government, all men are created free and equal, they cannot be kept equal except by restraint and servitude. You may pick out any number of individuals you wish, and start them out on an equal basis. If they are free, they cannot be kept on an equal basis very long. If they are enslaved, they will be. On the other hand, if the central planning authority is to decide on some basis other than that of equality you must have an arbitrary subjective decision in favor of some special interest. The only safe and just rôle of governmental authority is to provide rules of law which give each individual and each group a fair chance. No human agency may safely be entrusted with the power to determine the future of the people.

The planning that I am talking about is the planning that leads to absolutism in government. No one questions the exercise of foresight or planning in the ordinary sense. Indeed, planning by the government is a good thing if it is held within the bounds of constitutional liberty and the objective rule of law. But when we destroy those barriers and lodge in any central authority absolute power to plan, we are on the last walk, and on our way to the death house. Under such planning, no competitive authority, no competitive activity, not even any competitive thinking, can be tolerated. Nationalization of industry means nationalization of thought. If we are to have comprehensive central planning, it is inevitably subjective planning by one person or one group of persons for particular interests and purposes, and it ultimately reaches the point where the central planning authority decides everything, even what is true and what is false. And so we find that in Germany it may be a crime even to listen to a radio, and in Russia, to receive a foreign magazine

telling of the advantages enjoyed by people in other lands.

The American plan of government, so wisely conceived, has done much to check and retard this trend in America, but no form of government is sufficient to preserve individual liberty unless the people continue to appreciate and to fight for the principles upon which that liberty depends.

Abraham Lincoln, speaking at Springfield, in the neighboring state of Illinois, in regard to the dangers ahead of us in this country, had this to say:

"At what point then is the approach of danger to be expected? I answer, if it ever reach us, it must spring up amongst us; it cannot come from abroad. If destruction be our lot, we must ourselves be its author and finisher. As a nation of free men, we must live through all time, or die by suicide."

What can the doctors and the lawyers do about this? In my judgment, they can do very much, and that is why I propose a marriage between the medical profession and the legal profession for the purpose of fighting for the American way of government.

Other groups, while more numerous, are more handicapped. Political leaders are too often incapacitated by egotism and ambition. They find it expedient, if not necessary, to coddle the public. Business leaders are naturally sensitive to their profit and loss account. They are generally intimidated by the threat of confiscation of their capital and by the dangers of punitive investigation and regulation. They are attracted by the advantage of monopoly and governmental protection. Farmers are natural individualists and have stood up well against the onslaught of collectivism, but they are too much the victims of the weather and economic dislocations. The interest of labor is too special, and its leaders seem to be definitely committed to the principle of monopoly, without governmental control. Educators are migratory mentally and isolated practically. Scientists are inclined to overemphasize particularity, organization, and efficiency.

The professions, and particularly the medical and the legal professions, have what it takes. The doctors and the lawyers are, above all things, independent. They are possessed of more than average information, intelligence and education. They know that principles and technic are not obstructions, but necessary aids, to genuine progress. They have the power to reason. They have acquired a skill. They have had a wide and varied experience in human relations. They know human nature. They have the confidence of men

and women in every walk of life. Although they desire an adequate competence, they have renounced any ambition for wealth or power. Their education, training, experience, skill, and influence cannot be taken away. They are free and independent leaders. Above and beyond their professions, they are the sympathetic friends and confidential advisers of all mankind. If sufficiently roused, they could surely lead the people forward along the road of constitutional liberty, individual initiative, and private enterprise.

The cause is worthy of their best efforts. Old Daniel Webster, speaking in the shadow of the national capitol, said:

"Other misfortunes may be borne, or their effects overcome. If disastrous war should sweep our commerce from the ocean, another generation may renew it; if it exhaust our treasury, future industry may replenish it; if it desolate and lay waste our fields, still, under a new cultivation, they will grow green again, and ripen to future harvests.

"It were but a trifle even if the walls of yonder Capitol were to crumble, if its lofty pillars should fall, and its gorgeous decorations be all covered by the dust of the valley. All these may be rebuilt.

"But who shall reconstruct the fabric of demolished government?

"Who shall rear again the well-proportioned columns of constitutional liberty?

"Who shall frame together the skillful architecture which unites national sovereignty with State rights, individual security, and Public prosperity?

"No, if these columns fall, they will be raised not again. Like the Coliseum and the Parthenon, they will be destined to a mournful and a melancholy immortality. Bitterer tears, however, will flow over them than were ever shed over the monuments of Roman or Grecian art; for they will be the monuments of a more glorious edifice than Greece or Rome ever saw, the edifice of constitutional American liberty."

Some poet once sang out:

The period of our time is brief;

'Tis the red of the red rose leaf,

'Tis the gold of the sunset sky,

'Tis the flight of a bird on high.

But we may fill the space

With such an infinite grace

That the red will vein all time,

And gold through the ages shine,

And the bird fly swift and straight

To the portals of God's own gate.

That is the song of individual liberty. May it never perish in this country of ours.

ROMANCES OF CARDIOLOGY

DANIEL J. GLOMSET, M.D., Des Moines

(Continued from last month)

ELECTROCARDIOGRAPHY

Electrocardiography has been raised out of the Sea of the Unknown and built into the Cape of Cardiology by the toil of many giants in many lands. It had its beginning in a biologic laboratory in the University of Bologna in 1791. Biologic laboratories, then as now, have a variegated equipment which makes them look like junk shops. On a summer day in 1791 the laboratory in Bologna contained a machine for making electric sparks; near the generator lay a decerebrated frog, and the professor of anatomy, Luigi Galvani, was fussing about in the room. Soon someone gave the handle of the static machine a turn and the professor noted that the frog went into a violent muscle spasm. When the machine stopped, the frog lay quiet; when it started again, the frog once more began to kick. The professor got an idea. The laboratory attendants were sent scurrying for an iron rod which was put on top of the roof and connected with the laboratory by a wire. The personnel waited for the first rainy day. When the lightning began to flash, a prepared frog was touched by the wire and the same violent muscular twitchings were repeated—electric currents stimulated muscle.

Fifty-three years later, in 1842, Carlo Matteucci, another Italian, working in another biologic laboratory, placed the sciatic nerve of one frog leg on the muscle of the other limb, stimulated the muscle of the first leg to contraction, and observed that the muscles of the two legs contracted together. Hence, an electric current was set up by muscular contraction of leg one and caused the other muscle to contract because it had been carried over to it by the sciatic nerve. Fourteen years later two Swiss investigators, Kölliker and Müller, were able to demonstrate that an electric current was generated when the frog heart contracted. The next step in the development of electrocardiography was taken by two Englishmen, Sanderson and Page, in 1878. They invented a capillary electrometer by which the current generated in the heart could be picked up directly from the heart and recorded. Nine years afterward Professor Waller conceived the idea that the cardiac current could be led away from the body surface; he added electrodes to Page and Sanderson's electrometer.

While August D. Waller was carrying out his experiments with the capillary galvanometer, a col-

league across the channel became interested in the electrophysiology of the heart. He was Willem Einthoven, professor of physiology at Leyden. Einthoven had a flare for electricity. He tried Waller's instrument and did not like it, for the galvanometer was clumsy and inaccurate. The column of mercury had too much inertia to record accurately the variation of the weak cardiac current. But Einthoven knew of another apparatus made by Schweiger of the University of Halle, which used a string for the recording of such currents. Einthoven also knew that Eder had made use of a much finer string and a more powerful magnet than Schweiger in a device for the detection of the submarine. By building Eder's idea into a Schweiger instrument Einthoven, in 1903, constructed a new form of string galvanometer which was accurate and 100,000 times as sensitive as the Eder instrument. This apparatus Einthoven named the electrocardiograph. Many commercial firms have since made numerous models of the instrument, but Einthoven's string galvanometer is still unsurpassed. During the years 1907 and 1908 Einthoven laid the basis for electrocardiography in a series of excellent papers and sent one of his instruments to his friend, Waller, who in turn invited Sir James Mackenzie to look at the new "electrocardiac" wonder!

The electrocardiograph is an instrument of precision. Its value to clinical medicine is great. Yet, it might easily have remained but one of that motley array of scientific contraptions which form the armamentarium of any modern, well-equipped, physiologic laboratory, and which awe and bewilder the medical student when he first sets foot inside of such scientific sancta. The toil and tears of James Mackenzie prepared the medical soil for electrocardiography.

SIR JAMES MACKENZIE

Among the real medical giants there are some who have hypertrophied egos, and others normal. But the majority of the men and women who have added substantially to the sum of knowledge seem to have possessed atrophied ego. Dr. James Mackenzie's ego was vestigial. Up to middle age he believed that all doctors knew more about medicine than he, and after fifty he only occasionally entertained a mild doubt that the men in high places in medicine might actually know less than he did about his own life work. According to his own statement he was a dunce in school. When he

graduated from Edinburgh University, he was so impressed by his ignorance that the best he hoped for was to become a mediocre general practitioner. When he began to practice, he soon discovered that he did not know enough even to be a general practitioner, for the complaints of the patients, their symptoms and signs, were utterly strange to him. He was to learn many years later that his professors were as ignorant as he about the phase of medicine he encountered. He had entered an immense virgin field in pathology and determined to explore it. *He began to study the early manifestations of disease.*

It was in the middle of the eighties of the last century that Mackenzie was sitting at the bedside of a patient in the throes of labor. He had examined her before and had found the heart sound. The pains were severe and the family grew more and more apprehensive. The prospective father burst into the sick room. "Is she all right, Doctor?"

"Yes."

"How is she doing?"

"Splendidly." An hour afterward the patient was dead from heart failure. The doctor was stunned, humiliated, and deeply moved. From that day to his death he worked incessantly and continuously to learn to recognize and treat diseases of the heart. Long before his death he had become known as the most distinguished cardiologist in the world—the father of a second renaissance in cardiology.

After his sad experience with the woman in labor, he set about to make a thorough study of the heart in pregnancy and to make an accurate record of his findings. He noted that the pulse of some women was irregular and that there were various forms of irregularities. Could these have any significance? The books and the experts did not know. Mackenzie decided to find out. He secured a kymograph, a pulse tracer, in order to obtain permanent tracings of regular and irregular pulses. He noted the various types of pulse waves, saw the irregularities, but could not fathom their meaning. He also noted pulsations in the neck veins in some of the patients. What did these mean? At Edinburgh his teachers had told him that pulsating neck veins had no clinical significance. But now he no longer believed in the infallibility of his teachers. He would look and see. He sweat to make an instrument that would trace the pulsations of the heart and the neck veins at the same time, only to find that an instrument better than his had already been invented. Mackenzie threw his own out of the window and lugged the other with him to all his patients, bring-

ing back reams and reams of tracings which he studied at leisure.

While looking at a tracing of one of the most common forms of irregular pulse, he noted that the little auricular waves were absent from the neck tracings, and the pulse wave which was not preceded by such an atrial wave was peculiar. The Truth Seeker understood. The irregularity was not a skipped beat as he had been taught. It was an extra premature ventricular systole. Long persistent effort was rewarded! Later he found another form of irregularity in the young. This irregularity varied with breathing. He studied all his records of patients with the two types of arrhythmia and presented his findings before a society of "the would-be-great in medicine." He concluded the paper with the statement that such irregular pulses had no clinical significance. They were harmless! Hardly had the speaker sat down when a local "giant" arose and in solemn voice proclaimed, "I have observed four patients of the type described by Dr. Mackenzie. They all died." Quick as a flash the Scotsman shot back: "I have observed 400 patients with bald heads. They, too, all died."

Among Mackenzie's tracings, taken from obviously sick hearts, were strips that were completely irregular; that is, the beats were irregular in height and the distance between them was not the same in any two beats. In such tracings he could not find any atrial waves. The patients yielding such records were short of breath, often coughed, and had swollen ankles. Mackenzie concluded that such tracings carried a bad prognosis. It was a dangerous form of arrhythmia. One day a former patient came to see him on business. Years before, the man had been very sick with heart trouble and had been treated by Mackenzie. The doctor took his pulse. It was irregular. He took a tracing. It showed the bad form of irregularity. Yet, the man was not sick! He examined tracings from other patients which showed the dangerous form of irregularity. Some of these also came from patients who were well or nearly well. It was then that he made his greatest discovery—it is the condition of the myocardium and not the type of pulse or murmur that determines the patient's status. Patients with auricular paralysis, who were sick, had a rapid pulse. Those who felt well had a normal pulse rate. A rapid pulse rate wears out the cardiac muscle. When a murmur signified cardiac strain, it was dangerous—if it did not, it was of no consequence.

This almost led Mackenzie to discard his polygraph and devote all his spare time to the study of heart failure. He found that there were two distinct

kinds of heart failure: one, characterized by breathlessness, throbbing neck veins, coughing, and swelling of the limbs; the other, by pain in the chest upon effort.

Thus the Scotch "dunce" extended and elevated the Cape of Cardiology by (1) obtaining definite information about the early phases of the morbid physiology of the heart, (2) by making it plain, although not plain enough, that the cloistered teachers of medicine were not ideal leaders in medical progress, because they lack opportunity to observe and study the early phases of disease.

Mackenzie made the profession tracing-minded. The pseudo-giants of his day thought him one of them because of his polygraph and his tracings. It was during the period when tracings, so to speak, were in the medical air that Einthoven developed his electrocardiograph. Man seems to be suspicious of his ability to find truth by reasoning alone. He hates mental labor more than any other form of effort, and consequently leans readily on any mechanical crutch offered, especially if the crutch is complex and its product mysterious. Einthoven's string galvanometer is very complex and its tracings are mysterious. Electrocardiography from its beginning had attributes that led to popularity. It is too popular today!

SIR THOMAS LEWIS

Life often shapes man's destiny in wondrous ways!

Mackenzie disliked to be called a heart specialist, preferring to be known as a general practitioner because he was against over-specialization. He cautioned repeatedly against overemphasizing mechanical devices. Yet when Waller invited him to inspect Einthoven's string galvanometer, James Mackenzie *was* the heart specialist of the world. Doctors, young and not so young, flocked to London to learn about hearts and how to take tracings from the master. When these students returned home, they brought with them more or less of the master's mantle and a polygraph. Polygraphs suddenly appeared in offices and clinics all over the world, and a crop of heart specialists grew lustily in many lands.

Among Mackenzie's pupils was a brilliant young Englishman, Thomas Lewis, who had a fondness for mathematics and graphs. With his teacher's blessing Lewis journeyed to Leyden to learn from Einthoven the intricacies of the electrocardiograph. When Lewis returned to London, he brought an Einthoven string galvanometer back with him and forthwith began taking tracings from patients. The fruit of his labors appeared as a series of classic papers dealing with electrocardiography. The papers were striking, not only because they

contained imposing tables giving figures to 1/1000 of a second and beautiful electrocardiograms, but also because they were written in lucid English. After a few years a little book on cardiac arrhythmia appeared. It sold like "hot dogs" and finally Lewis crowned his labor by publishing *The Mechanism and Graphic Representation of the Heart Beat*. It became the Bible of cardiologists.

The publications of Sir Thomas Lewis were eagerly read by medical men the world over. The net result of the reading was that doctors, anxious to learn the new science of electrocardiography, booked passage on the first boat for London and Lewis. As by magic, polygraphs disappeared from offices, and cardiac stations and electrocardiographs took their places. Journals devoted exclusively to cardiac research and diseases of the heart appeared in most civilized lands. Their pages were and are filled with electrocardiograms. At present even the cultists use the new apparatus, and a new super-specialist, the electrocardiographic interpreter, has appeared in our midst. Will the wonders of science ever cease!

Electrocardiography is grossly abused today. The abuse will come to an end; its true value to medicine will remain. When that day arrives, the gap between clinical and anatomic diagnosis of heart disease will have been closed, and the Cape of Cardiology will have become a peninsula.

DR. JAMES B. HERRICK

All his medical career Dr. Mackenzie strove to recognize and understand morbid processes in the heart in order to treat heart disease rationally. He made use of all the available diagnostic aids of his day, but he used them merely as aids, not as substitutes, for the human brain. Time and time again he cautioned his colleagues against placing too much reliance on physical equipment. He was hoping for a profession of master clinicians having good tools and clear brains.

The most perfect example of a master clinician I have met is James B. Herrick of Chicago. Dr. Herrick early in his medical career mastered the available knowledge about the heart. Because he taught physical diagnosis at Rush he became very skillful in inspection, percussion, auscultation, and in the use of other diagnostic methods. Through many years of personal experience with the various methods, and through his close personal association with a great pathologist, Herrick had ample opportunity properly to evaluate the signs and symptoms he observed. These qualifications added to the fact that he is more blest than most men with seeing eyes, hearing ears, and a clear, logical mind, enabled James B. Herrick to lift out of the Sea of the Unknown a large

segment of knowledge that had been lying awash just off the shore of the Cape of Cardiology since the time of Morgagni!

In January, 1910, Dr. Bremmerman called Dr. Herrick in counsel for a case of an obscure serious illness. Herrick's own account of his experiences with coronary thrombosis follows:

"When I saw him twelve hours after the painful attack, his mind was clear and calm; moderate cyanosis and mild dyspnea were present. The chest was full of fine and coarse moist râles; there was a running feeble pulse of 140. The heart tones were very faint and there was a most startling and confusing hyperresonance over the chest, the area of heart dullness being entirely obscured. The abdomen was tympanitic. This condition remained with slight variations up to the time of his sudden death, fifty-two hours after the onset of the pain, though at one time the râles seemed nearly to have disappeared. . . . That the accident might be primarily abdominal was considered and to help rule out some such condition that might call for surgical interference, we decided to call in Dr. John B. Murphy. . . .

"At the request of the family, Dr. Murphy and I came back in the evening and stayed all night. We were in a big room with twin beds. Murphy, hearing me turn in bed, but not wishing to waken me if I were asleep, would whisper, 'Herrick, are you awake? Say, are you sure about there being no pneumothorax?' A little later, from my bed, also in a stage whisper: 'Dr. Murphy, do you think this might be an acute pancreatitis, or possibly a strangulated diaphragmatic hernia?' Neither of us slept much. We got up once or twice during the night to look at the patient.

"As recorded in the history, the patient, with little suffering and with little change in condition, lived until about 4:00 a. m., January 18, when suddenly the heart and breathing stopped. The autopsy by Dr. Hektoen was performed the same day. I was unable to be present. Dr. Hektoen asked me over the telephone what he might expect to find. My reply was, 'Look for a clot in the coronary artery. If you don't find that, find a perforated gallbladder or a perforating duodenal ulcer, hemorrhagic pancreatitis, hemorrhage into the adrenals, strangulated hernia, perhaps a diaphragmatic hernia, ruptured pleura, or any other accident you know about.' Dr. Hektoen, with the dry humor for which he is well known, with mock courtesy thanked me for giving him such a great variety to choose from. He called me up that evening and said: 'The clot was in the coronary artery, all right. But how in God's name did you guess it?' Perhaps guess was the right word. . . .

"It is evident that, long before May, 1912, when

I read my paper at the Association of American Physicians, I had become much surer of my ground, for, in May, 1911, at Des Moines, in the course of an address on 'Pain in Disease of the Heart,' delivered before the Section on Medicine of the Iowa State Medical Society, I devoted about 1,500 words to acute obstruction of the coronary artery. . . . The concluding paragraph is perhaps worth quoting—as it shows that my ideas at that time were pretty well crystallized, . . .

" 'This address, if it accomplishes its aim, will encourage the specialist and the research worker to go forward with the use of the newer instruments and with the investigations by which new facts concerning the heart will come to light. It will also, I trust, encourage the general practitioner to retain some of his old self-confidence and not to lose faith in his powers of observation and in his ability to analyze subjective symptoms; and still to believe that it is possible by well-established methods of physical diagnosis to understand many of the anatomic pathologic and physiologic conditions of this important organ.'

"It seemed strange to me at the time, it seems strange to me now, that when, in 1912, I read before the Association of American Physicians a paper that seemed to me to contain an important announcement, it fell like a dud. No one, except Emanuel Libman, discussed it or even asked a question. I must have been keyed up to a high pitch, for I recall my eagerness to have the article published promptly; I feared someone else might jump into print ahead of me. My anxiety about priority was groundless. Even after its publication in the *Journal of the American Medical Association*, in December, 1912, it aroused no more comment than it did when it had been read six months before. No really live interest in the topic was manifested until the second paper, on 'Thrombosis of the Coronary Arteries,' was read before the association in 1918. This contained reports on two other patients, with the autopsy findings. It contained, besides, a record of Dr. Fred M. Smith's laboratory experiments on dogs, with lantern slides of electrocardiograms and pathologic specimens. In those days, and it is often true today, a lantern slide of a graph, or an experiment on a dog in a laboratory, attracted greater attention than mere observations made at the bedside on human beings.

"It is surprising how easy it is, as Isaiah noted long ago (Isaiah 42:20), to hear but not understand, to see but not really observe. We are all human; we have all erred in this respect. At times I wondered why my early paper had attracted no attention; why my Des Moines address had apparently fallen on deaf ears. . . .

"By the end of 1910, and especially after 1911, when I read the paper in Des Moines, I began consciously to do what I called missionary work, preaching the gospel of the pathology and clinical symptoms of acute coronary obstruction. In lectures to students, in clinics, in consultations with physicians and in talks before medical societies in Chicago and elsewhere, I talked coronary occlusion almost ad nauseam. A few listened attentively, more incredulously, the majority, indifferently. I recall an informal talk before a meeting of Western Surgeons in the Rush amphitheater, in which I stressed the resemblance of the accident to acute abdominal surgical conditions. I can still see the quizzical look on Charlie Mayo's face, as from a front seat, he listened to, but was evidently not converted, by my sermon. . . .

"An interesting episode may be mentioned, as showing the attitude of mind of even excellent men at that time. My patient, the doctor, after his first interview with me, went to make a social and semiprofessional visit on a prominent colleague in a large western city. When my diagnosis of coronary thrombosis was mentioned, the colleague emphatically said that neither Dr. Herrick nor any one else was justified in making such a diagnosis except on the autopsy table. The attempt was ridiculous because it was impossible. . . ."

Thus, Herrick clarified and completed the concept of coronary disease, and revealed it the monster of iniquity it is. Today any senior medical student can make a correct diagnosis of the coronary syndrome. And the effect of Herrick's "ad nauseam teaching" is shown dramatically each week in the list of death notices that appear in the *Journal of the American Medical Association*.

CARDIAC THERAPY

The foregoing paragraphs of this little story have dealt with the acquisition of knowledge concerning the nature and detection of cardiac disorders. However, the prime interest of clinician and patient centers around the prevention and cure of cardiac diseases, and the alleviation of suffering caused by them. The rest of this account will be devoted to a discussion of the development of cardiac therapy and of giants whose toil brought it about.

It is obvious that during the dark ages, when the heart was considered immune to disease, there could be no therapeutic advance. Yet, even then effective treatment was practiced inadvertently; Physicians had sense enough to keep their patients supine as long as they were short of breath, and to administer opium for their pain. As late as the eighteenth century cardiac treatment was

crude and empiric, often doing more harm than good. The blood-letting, cupping, and leaching, which appear to have been standard procedures, were on the whole either worthless or harmful, and the rigorous mercurial treatment for lesions, thought to be syphilitic, did so much harm that the pathologist often was at a loss to ascribe the morbid changes to syphilis or to mercury poisoning. When, in 1773, John Hunter began to have attacks of cardiac pain, the treatment was as follows: "He changed his position, sitting down, walking, laying himself down on a carpet, then upon chairs. He took a spoonful of tincture of rhubarb with 30 drops of laudanum. Later he took madeira, brandy, ginger. During another attack 8 ounces of blood was taken away; he was cupped between the shoulders, and a large blister applied. He took an emetic; several times he took purging medicine; bathed his feet in hot water; took some James powder; and drank white wine. At another time Dr. Pitrain prescribed 10 grains asafoetida, 3 grains opium, laxative clysters and 10 grains jalop. Then Sir George Baker, Drs. Warren and Pitrain repeated the asafoetida twice and gave

Rx Infus. Senna	oz. 6
Tinct. Senna	drams 1½
Soluble tartar	drams 3

Sig. 2 teaspoonfuls every hour.

He also took cinnamon water, oleum succine, warm tinct. of rhubarb and baume de vie, etc."

WILLIAM WITHERING

Eleven years before John Hunter took his self-administered empiric treatment for cardiac pain, there enrolled in the medical school at Edinburgh, made famous by the sweat, blood, and toil of such men as the Monroes, Cullen, and Fothergill, a doctor's son from Shropshire, England. This lad was William Withering. Botany was a compulsory study at the medical school. Young Withering did not like botany. Nevertheless, he received the professors' gold medal at the end of the course (1764). Yet, he wrote to his parents: "It (the medal) will hardly have charms enough to banish the disagreeable feeling I have formed from the study of botany." In 1766 he began his practice at Stafford near his home. In that city there lived a young lady, Helena Cooke, whose hobby was the painting of flowers. Is it possible that this daughter of Eve's interest in flower painting was a bit sharpened when she learned that a handsome young doctor who had won a gold medal in botany had come to town? And could it be that when she came to his office as a patient she complained of what difficulty she had in finding the correct names for the wild flowers she painted?

At any rate, in the words of Meakins, she became a patient "to whom he would appear to have had a safer attachment than that engendered by a lucrative patient."

In order to impress this very desirable patient, we may be reasonably sure that he reviewed his texts on botany and brought her flowers to paint during her convalescence. Later on, the two probably took walks through the beautiful English countryside, and he could not have been a true son of Adam unless he displayed his botanical knowledge to his lady by telling what he knew about the plants they encountered on their walks. Looked at in their light botanizing became a delightful experience—and profitable, too, for in the year 1772 the two were married, and in 1776 Withering published his *Arrangements of British Plants*. It was the first British textbook of botany.

When the tedious work essential to the publication of his botany drew to a close, Withering must have been weary once more of the study of plants. He had many irons in the fire. He liked to play the flute and read poetry. He was interested in mineralogy, and Priestley had engendered in him an enthusiasm for chemistry. Perhaps most important of all, there was by 1774 "Im and 'Er and It." He must increase his income. At the instigation of that sour-puss, Erasmus Darwin, Withering moved to the industrial city of Birmingham (1775). Financially he improved himself at Birmingham, and must have thought himself rid of botany forever when he sent his *British Vegetables* to the publishers. But he wasn't!

In the infirmāry at Stafford and in his private practice he had often encountered cases of dropsy. The causes of dropsy were not understood in that day. He had treated his cases as empirically as John Hunter treated himself for his cardiac pain in 1773—and did not get even as good results as Hunter had from his 30 drops of laudanum and brandy. Neither Withering nor the other practitioners benefited the dropsical patients very much. Hence, sooner or later some of them drifted over to an old herb-woman in Withering's home country. She cured the patients by the use of a medical vegetable soup containing 20 different herbs which caused violent vomiting and purging. The botanist-doctor suspected that foxglove was the active ingredient of the herb medicine and, during his first year in Birmingham, began to experiment with it on turkeys and man.

At first he used a decoction, then an infusion. The latter was gradually abandoned in favor of a beautiful green powder which he made from the dried leaves. The dose, either in powder or pill form, was one grain twice a day. He stopped

the drug when it acted upon the kidneys, the stomach, the pulse, or the bowels.

Withering was called in consultation to see the dean of a local church who was water-logged, short of breath, and had an irregular pulse. The older doctors in attendance had tried the various standard remedies of the day but to no avail. Withering prescribed digitalis. The dean recovered. Erasmus Darwin had a woman who also suffered from congestive heart failure. He called Withering in counsel. Again digitalis was prescribed, the patient's pulse became steady, and she went back to work. Darwin reported the case and later claimed that he and not Withering, whom he violently denounced as an imposter, had discovered the use of digitalis.

While Withering continued his experiments and careful observation on the use of the foxglove the drug became alāmode for all sorts of illnesses. As happens with any new "key" in medicine, it was tried on all therapeutically-locked doors. But it was administered in too large doses so that the toxic effect became conspicuous among the digitalized sick. Because of the abuse of the drug, Withering's friends urged him to publish his own observations on it. In 1785 *An Account of the Foxglove and Some of its Medical Uses* appeared. The "Account" represents the beginning of rational cardiac therapy; Withering extended the Cape of Cardiology far out into the Sea of the Unknown. But, because of the initial abuse of the foxglove, it fell into disrepute from which it was not rescued until our own era. Today, it is the keystone in the arch of cardiac therapy.

PAUL EHRLICH

Attention has already been called to the discovery of America as one of the first fruits of the Renaissance. The sailors of Columbus brought back a vastly enlarged world. They also brought back syphilis. The loathsome venereal disease spread through Spain, France, and into Italy with amazing rapidity. Before a century had passed, that white plague had been planted in every nook and corner of the globe by sinning white folk. At the end of the nineteenth century the disease was so prevalent that every medical student was familiar with its polymorphous manifestations. He knew the rashes of syphilis, had seen the deep ulcers that at times penetrated the skull and sloughed off the entire nose. He was familiar with the acute syphilitic meningitis that caused death and knew very well that every asylum housed hopelessly insane syphilitics. Mothers, many of them, learned that the disease killed babies in their wombs, even blinded their offspring after children had grown up, apparently healthy. Even to-

day, this terrible disease is responsible for nearly 10 per cent of premature cardiac failure. Syphilis attacks the wall of the aorta and causes sudden death from hemorrhage. It destroys the valves of that great vessel often causing the victim to die before he reaches middle age.

During the last third of the nineteenth century when hard working bacteriologists were discovering by the dozens the germs that are responsible for infections, many looked long and hard for the cause of syphilis. But the germ eluded the searchers. When the last century came to a close, the cause of the disease was unknown. However, at that time there lived in Hamburg a zoologist who was director of the Kaiserliches Gesundheitsamt. This man was Fritz Schaudinn who had devoted his professional life to the study of protozoa. None was more skillful; none had tackled research problems with more intelligence and industry than did Fritz Schaudinn. In 1905 he and Erich Hoffmann were applying to syphilitic material a new technique for staining flagellates in tissue. There they came upon delicate corkscrew shaped organisms lying among the cells. Could it be? The work was repeated. Again they saw spirochetes. The two men worked feverishly until they were certain! Schaudinn sent his material to his American colleague, the late Dr. Novy of the University of Michigan, and received a go-ahead cable. The cause of syphilis had been found.

At the time that Schaudinn and Hoffmann were making doubly sure that they were dealing with the real organism of syphilis, there walked about in the Serum Institute in Frankfurt am Main a gesticulating man in horn-rimmed spectacles. That man had sat in Berlin in the year 1882 and listened to Robert Koch lecture on the tubercle bacillus. It was the most momentous evening of his life. "From that evening on, Koch became his God, and the fighting of infections his life work." That Jew, Paul Ehrlich, fought hard: first in Koch's laboratory where Koch's special bug almost got him. He had to go to Egypt to regain his health. When he came back, he continued his fight against germs. At the time Schaudinn discovered the pale spirochetes, Ehrlich had obtained "Geld," he had developed some "Geduld," and was about to have the "Glück" he so richly deserved; for, in 1905 a rich Jewish widow had donated enough money to build him an Institute, well equipped and well staffed, and Ehrlich was the Herr Direktor. He still walked about, puffing expensive cigars, gesticulating, and making sketches to illustrate his theories. Ehrlich was a cellular chemist, he believed "*La vie est une fonction chimique.*" His "*idée fixe*" was: "We must learn

to shoot microbes with magic bullets." Hence, his enemies called him Doktor Phantasus.

At Frankfurt Ehrlich, who read everything he could obtain on immunity and chemistry, had noted that Von Behring's antitoxins had failed to cure all infections and that Pasteur's hope for vaccines was not to be fulfilled. He, therefore, staked his all on finding his magic bullet in chemistry. He had moved to Frankfurt to be near its great dye works and their master chemists. He loved the colors of dyes and ever since he had injected methylene blue into the ear veins of a rabbit and found that the dye stained only the nerve tissue, the crazy Jew believed that somehow his magic bullet could be cast by making a chemical that would be harmless to the host's tissue but would kill the germ. Laveran's work on the trypanosomes furnished him his first clue. The flagellates could be readily seen; they killed mice with ease. Laveran had tried to kill the microbes with arsenic; but arsenic killed the trypanosomes *and* the mice. He would try to change arsenic compounds into magic bullets. He tried 500 dyes containing arsenic; none worked. He would change them a little, attach the sulfa group to the benzopurpurine. He injected the soluble, new chemical. One single mouse failed to die from the trypanosome injection. It was his first success. But it was only one! All subsequent mice died in spite of his injections. The dyes did not work; but Paul Ehrlich did! He read and read all he could find on poisonous chemicals that could be changed a little. He read about atoxyl, a foxy name for an arsenic compound supposedly non-poisonous that almost cured animals and people from sleeping sickness. Yes, but it was poisonous, it killed mice, and made darkies go stone blind. Maybe it could be changed a little. But, no, it was supposed to be one of those unchangeable compounds! Ehrlich would try to change it anyhow! And Paul Ehrlich found a way to change atoxyl. Then the excitable man went wild. Maybe it could be changed into a thousand compounds of arsenic. Change atoxyl they did, the workers at that institute, and found one compound that killed the flagellates. The whole personnel of the Institute went as nutty as the Herr Direktor, but the cured mice died after a few days from anemia and jaundice. On they worked at Ehrlich's institute, 100 experiments, 200, 300, 400, 500, 600 experiments. The quest was "getting warm." Then came 606—that did it! The mice were cured and remained healthy. It was about this time that Paul Ehrlich read about Schaudinn's pale spirochetes—which closely resemble trypanosomes.

The rest has been told a thousand times. Sal-

(Continued on page 114)

Roster of Iowa Physicians in Military Service

As of February 23, 1945

Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) Capt., A.U.S.
Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.) Capt., A.U.S.

Adams County

Bain, C. L., Corning (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Willett, W. J., Carbon (APO 230, New York, N. Y.) Capt., A.U.S.

Allamakee County

Hogan, P. W., Waukon
Ivens, M. H., Waukon (Miami Beach, Fla.) Capt., A.U.S.
Kiesau, M. F., Postville (Jefferson Barracks, Mo.) Major, A.U.S.
Rominger, C. R., Waukon (Camp Claiborne, La.) A.U.S.

Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.) Major, U.S.P.H.S.
Edwards, J. R., Centerville (Richmond, Va.) Capt., A.U.S.
Huston, M. D., Centerville (Camp Bowie, Texas) Capt., A.U.S.

Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) Major, A.U.S.

Benton County

Koontz, L. W., Vinton (APO 7, San Francisco, Cal.) Capt., A.U.S.
Senfeld, Sidney, Belle Plaine

Black Hawk County

Bickley, D. W., Waterloo (APO New York, N. Y.) Capt., A.U.S.
Bickley, J. W., Waterloo (APO 956, San Francisco, Cal.) Capt., A.U.S.
Butts, J. H., Waterloo (Galveston, Texas) Comdr., U.S.N.R.
Cooper, C. N., Waterloo Lt. Comdr., U.S.N.R.
Ericsson, M. G., Cedar Falls (Camp Berkeley, Tex.) Capt., A.U.S.
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) Capt., A.U.S.
Henderson, L. J., Cedar Falls (APO 782, New York, N. Y.) Major, A.U.S.
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) Capt., A.U.S.
Ludwick, A. L., Waterloo (Abilene, Texas) Major, A.U.S.
Marquis, F. M., Waterloo (APO 17321, New York, N. Y.) Capt., A.U.S.
O'Keefe, P. T., Waterloo (APO 79, New York, N. Y.) Capt., A.U.S.
Paige, R. T., LaPorte City (Banana River, Fla.) Comdr., U.S.N.R.
Rohlf, E. L., Jr., Waterloo (APO 230, New York, N. Y.) Major, A.U.S.
Seibert, C. W., Waterloo (Colorado Springs, Colo.) Major, A.U.S.
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) Major, A.U.S.
Smith, R. I., Waterloo (Milwaukee, Wis.) Capt., A.U.S.
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) Major, A.U.S.
Trunnell, T. L., Waterloo (Parris Island, S. Car.) Lt. U.S.N.R.

Boone County

Brewster, E. S., Boone (APO 446, New York, N. Y.) Major, A.U.S.
Healy, M. J., Boone (Camp Chaffee, Ark.) Capt., A.U.S.
Shane, R. S., Pilot Mound (Des Moines, Ia.) Lt. Col., A.U.S.

Bremer County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Rathe, H. W., Waverly (APO 209, New York, N. Y.) Major, A.U.S.
Shaw, R. E., Waverly (Long Beach, Cal.) 1st Lt., A.U.S.

Buchanan County

Barton, J. C., Independence (APO 314, New York, N. Y.) Lt. Col., A.U.S.
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Leehey, P. J., Independence (APO 244, San Francisco, Cal.) Capt., A.U.S.
Loeck, J. F., Aurora (APO 9787, New York, N. Y.) Capt., A.U.S.

Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) Capt., A.U.S.
Brecher, P. W., Storm Lake (Camp Adair, Ore.) Lt. Col., A.U.S.
Hansen, R. R., Storm Lake (Farragut, Idaho) Lt., U.S.N.R.
Mailliard, R. E., Storm Lake (APO 254, New York, N. Y.) Lt. Col., A.U.S.
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) Capt., A.U.S.
Witte, H. J., Marathon (Fort Crook, Nebr.) Major, A.U.S.

Butler County

Andersen, B. V., Greene (Fleet PO, Seattle, Wash.) Lt., U.S.N.R.
James, R. A., Allison (Mare Island, Cal.) Lt., U.S.N.R.
Rolf, F. O., Parkersburg (Springfield, Mo.) 1st Lt., A.U.S.

Calhoun County

Grinley, A. V., Rockwell City (APO 350, New York, N. Y.) Capt., A.U.S.
Hobart, F. W., Lake City (Camp Grant, Ill.) Capt., A.U.S.
McVay, M. J., Lake City (Waco, Texas) Capt., A.U.S.

Peek, L. H., Lake City (Jefferson Barracks, Mo.) Capt., A.U.S.
Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
Weyer, J. J., Lohrville (APO 465, New York, N. Y.) Capt., A.U.S.

Carroll County

Anneberg, A. R., Carroll (Camp Berkeley, Texas) A.U.S.
Anneberg, W. A., Carroll (APO 367, New York, N. Y.) Capt., A.U.S.
Cochran, J. L., Carroll (Gulfport, Miss.) Lt., U.S.N.R.
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Freedland, Maurice, Coon Rapids
Morrison, J. R., Carroll (Ft. Dix, N. J.) Capt., A.U.S.
Morrison, R. B., Carroll (APO 634, New York, N. Y.) Capt., A.U.S.
Pascoe, P. L., Carroll (Bowman Field, Ky.) Capt., A.U.S.
Scannell, R. C., Carroll (Denver, Colo.) Capt., A.U.S.
Tindall, R. N., Coon Rapids (Hines, Ill.) Major, A.U.S.
Wyatt, M. R., Manning (Stuttgart, Ark.) Capt., A.U.S.

Cass County

Egbert, D. S., Atlantic (APO 218, New York, N. Y.) Major, A.U.S.
Needles, R. M., Atlantic (APO 131, New York, N. Y.) Capt., A.U.S.
Petersen, M. T., Atlantic (Topeka, Kan.) Capt., A.U.S.
Schiff, Joseph, Anita (Walla Walla, Wash.) 1st Lt., A.U.S.

Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.) Lt., U.S.N.R.
Mosher, M. L., West Branch (APO 560, New York, N. Y.) Capt., A.U.S.
O'Neal, H. E., Tipton (Camp Maxey, Texas) Lt. Col., A.U.S.

Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.) Capt., A.U.S.
Egloff, W. C., Mason City (APO 17130, New York, N. Y.) Capt., A.U.S.
Flickinger, R. R., Mason City (Memphis, Tenn.) Capt., A.U.S.
Hale, A. E., Dougherty (Atlanta, Ga.) Capt., A.U.S.
Harris, R. H., Mason City (Dyersburg, Tenn.) Capt., A.U.S.
Harrison, G. E., Mason City (APO 365, New York, N. Y.) Col., A.U.S.
Houlahan, J. E., Mason City (APO 838, New Orleans, La.) Capt., A.U.S.
Lannon, J. W., Clear Lake (APO 230, New York, N. Y.) Capt., A.U.S.
Long, D. L., Mason City (APO 520, New York, N. Y.) Capt., A.U.S.
Morgan, P. W., Mason City (Camp Butner, N. Car.) Capt., A.U.S.
Sternhill, Irving, Mason City (Ayer, Mass.) Capt., A.U.S.

Cherokee County

Bullock, G. D., Washta (APO 17583, New York, N. Y.) Capt., A.U.S.
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) Major, A.U.S.
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) Capt., A.U.S.

Chickasaw County

Caulfield, J. D., New Hampton (APO 178, New York, N. Y.) Major, A.U.S.
Murphey, A. L., Fredericksburg (Hot Springs, Ark.) Capt., A.U.S.
O'Connor, E. C., New Hampton (Redmond, Ore.) Capt., A.U.S.
Richmond, P. C., New Hampton (APO 88, New York, N. Y.) Major, A.U.S.

Clarke County

Armitage, G. I., Murray (Carlisle Barracks, Pa.) 1st Lt., A.U.S.

Clay County

Edington, F. D., Spencer (APO 649, New York, N. Y.) Col., A.U.S.
Jones, C. C., Spencer (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
King, D. H., Spencer (Peterson Field, Colo.) Capt., A.U.S.

Clayton County

Andersen, H. M., Strawberry Point (Camp Crowder, Mo.) Capt., A.U.S.
Glesne, G. G., Monona (Knoxville, Iowa) Capt., A.U.S.
Rhomburg, E. B., Guttenberg (APO 584, New York, N. Y.) Capt., A.U.S.

Clinton County

Amesbury, H. A., Clinton (Vancouver, Wash.) Capt., A.U.S.
Burke, J. C., Clinton (Great Bend, Kan.) A.U.S.
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) Capt., A.U.S.
Hill, D. E., Clinton (APO 9787, New York, N. Y.) Capt., A.U.S.
King, R. C., Clinton (APO 403, New York, N. Y.) Capt., A.U.S.
Lenaghan, K. T., Clinton (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Norment, J. E., Clinton (Washington, D. C.)

Riedesel, E. V., Wheatland (Fort Douglas, Utah)
Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.)...Capt., A.U.S.
Snyder, D. C., De Witt (APO 520, New York, N. Y.)...Capt., A.U.S.
Speigel, I. J., Clinton (Galesburg, Ill.)...Capt., A.U.S.
Van Epps, E. F., Clinton (APO 9921, New York, N. Y.)...Capt., A.U.S.
Waggoner, C. V., Clinton (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
Wells, L. L., Clinton (APO 562, New York, N. Y.)...Capt., A.U.S.

Crawford County

Fee, C. H., Denison (APO 696, New York, N. Y.)...Major, A.U.S.
Gau, A. H., Denison, (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
Maire, E. J., Vail (APO 18085, New York, N. Y.)...Capt., A.U.S.
Wetrich, M. F., Manilla (APO 986, Seattle, Wash.)...Capt., A.U.S.

Dallas-Guthrie Counties

Butterfield, E. T., Dallas Center (Fort Sheridan, Ill.)...1st Lt., A.U.S.
Byrnes, A. W., Guthrie Center (Fort Custer, Mich.)...Major, A.U.S.
Fail, C. S., Adel (Fleet PO, San Francisco, Cal.)...Lt. U.S.N.R.
Margolin, J. M., Perry (APO 5816, New York, N. Y.)...Capt., A.U.S.
McGillvra, R. I., Guthrie Center (Ames, Iowa)....Lt., U.S.N.R.
Mullmann, A. J., Adel (APO 565, San Francisco, Cal.)...Capt., A.U.S.
Nicoll, C. A., Panora (APO 349, New York, N. Y.)...Major, A.U.S.
Osborn, C. R., Dexter (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
Todd, D. W., Guthrie Center (APO 2, New York, N. Y.)...Capt., A.U.S.
Wilke, F. A., Woodward...Capt., A.U.S.

Davis County

Fenton, C. D., Bloomfield (APO 5253, New York, N. Y.)...Capt., A.U.S.
Gilfillan, G. W., Bloomfield (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.

Decatur County

Gamet, E. E., Lamoni (APO New York, N. Y.)...Capt., A.U.S.

Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.)...Capt., A.U.S.
Clark, R. E., Manchester (APO 419, New York, N. Y.)...Capt., A.U.S.

Des Moines County

Eigenfeld, M. L., Burlington (Cleveland, Ohio)...1st Lt., A.U.S.
Heitzman, P. O., Burlington (Fort Lewis, Wash.)...Capt., A.U.S.
Jenkins, G. D., Burlington (West Point, N. Y.)...Lt. Col., A.U.S.
Lohmann, C. J., Burlington (APO 708, San Francisco, Cal.)...Major, A.U.S.
McKitterick, J. C., Burlington (Hamilton, R. I.)...Comdr., U.S.N.R.
Moerke, R. F., Burlington (APO 565, San Francisco, Cal.)...Capt., A.U.S.
Sage, E. C., Burlington (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.

Dickinson County

Buchanan, J. J., Milford (Santa Ana, Cal.)...Lt., U.S.N.R.
Henning, G. G., Milford (APO 96, San Francisco, Cal.)...Major, A.U.S.
Nicholson, C. G., Spirit Lake (Sawtelle, Cal.)...Capt., A.U.S.
Rodawig, D. F., Spirit Lake (Topeka, Kan.)...Major, A.U.S.

Dubuque County

Anderson, E. E., Dubuque (Bradley Field, Conn.)...Capt., A.U.S.
Beddoes, M. G., Cascade (APO 709, San Francisco, Cal.)...Capt., A.U.S.
Conzett, D. C., Dubuque (APO 887, New York, N. Y.)...Lt. Col., A.U.S.
Cunningham, J. C., Dubuque (Fairfield, Ohio)...Capt., A.U.S.
Edstrom, Henry, Dubuque (APO 645, New York, N. Y.)...Major, A.U.S.
Entringer, A. J., Dubuque (APO 41, San Francisco, Cal.)...Capt., A.U.S.
Hall, C. B., Dubuque (Camp Shelby, Miss.)...Capt., A.U.S.
Knoll, A. H., Dubuque (San Francisco, Cal.)...Major, A.U.S.
Langford, W. R., Epworth (Miami Beach, Fla.)...Capt., A.U.S.
Lavery, H. B., Dubuque (Washington, D. C.)...Lt. Col., A.U.S.
Leik, D. W., Dubuque (Wichita Falls, Tex.)...Capt., A.U.S.
Mueller, J. J., Dubuque (APO 230, New York, N. Y.)...Capt., A.U.S.
Olson, P. F., Dubuque (Mare Island, Cal.)...Lt. Comdr., U.S.N.R.
Painter, R. C., Dubuque (Salt Lake City, Utah)...Lt., U.S.N.R.
Paulus, J. W., Dubuque (APO 115, New York, N. Y.)...Capt., A.U.S.
Plankers, A. G., Dubuque (APO 363 New York, N. Y.)...Lt. Col., A.U.S.
Quinn, E. P., Dubuque (Brentwood, L. I.)...Major, A.U.S.
Scharle, Theodore, Dubuque (APO 17570, New York, N. Y.)...Capt., A.U.S.
Schneller, C. J., Dubuque (APO 758, New York, N. Y.)...1st Lt., A.U.S.
Sharpe, D. C., Dubuque (APO 5541, New York, N. Y.)...Major, A.U.S.
Smith, C. W., Dubuque (Shoemaker, Cal.)...Lt., U.S.N.R.
Steffens, L. F., Dubuque (Camp Chaffee, Ark.)...Lt. Col., A.U.S.
Straub, J. J., Dubuque (Corpus Christi, Texas)...Lt., U.S.N.R.
Ward, D. F., Dubuque (Great Lakes, Ill.)...Lt. Comdr., U.S.N.R.

Emmet County

Clark, J. P., Estherville (APO New York, N. Y.)...Capt., A.U.S.
Collins, L. E., Estherville (APO 247, San Francisco, Cal.)...1st Lt., A.U.S.
Miller, O. H., Estherville (Seattle, Wash.)...Lt. Comdr., U.S.N.R.

Fayette County

Gallagher, J. P., Oelwein (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
Henderson, W. B., Oelwein (St. Louis, Mo.)...Lt. Col., A.U.S.
Sulzbach, J. F., Oelwein
Walsh, W. E., Hawkeye (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.

Floyd County

Baltzell, W. C., Charles City (APO 2, New York, N. Y.)...Major, A.U.S.
Flater, N. C., Floyd (APO 350, New York, N. Y.)...Capt., A.U.S.
Knight, R. A., Rockford (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
Mackie, D. G., Charles City (APO 215, New York, N. Y.)...Capt., A.U.S.
Miner, J. B., Jr., Charles City (San Diego, Cal.)...Lt., U.S.N.R.
Tolliver, H. A., Charles City (APO 91, New York, N. Y.)...Capt., A.U.S.

Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) 1st Lt., A.U.S.
Hedgecock, L. E., Hampton (Camp Lejeune, N. Car.)...Lt. Comdr., U.S.N.R.
Randall, W. L., Hampton (Oceanside, Cal.)...Lt., U.S.N.R.
Walton, S. G., Hampton (APO New York, N. Y.)...Capt., A.U.S.

Fremont County

Kerr, W. H., Hamburg (Camp Phillips, Kan.)...Capt., A.U.S.
Marrs, W. D., Tabor (Ardmore, Okla.)...Capt., A.U.S.
Powell, R. A., Farragut (Great Lakes, Ill.)...Lt. (jg), U.S.N.R.
Wanamaker, A. R., Hamburg (APO 939, Seattle, Wash.)...Capt., A.U.S.

Greene County

Cartwright, F. P., Grand Junction (APO 511, New York, N. Y.)...Capt., A.U.S.
Castles, W. A., Rippey (APO 958, San Francisco, Cal.)...Major, A.U.S.
Hanson, L. C., Jefferson (APO 728, New York, N. Y.)...Capt., A.U.S.
Jongewaard, A. J., Jefferson (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
Limburg, J. L., Jr., Jefferson (APO 503, San Francisco, Cal.)...Major, A.U.S.
Lohr, P. E., Churdan (Hastings, Nebr.)...Lt., U.S.N.R.

Grundy County

Cullison, R. M., Dike (Fort Howard, Md.)...Major, A.U.S.
Rose, J. E., Grundy Center (Fleet PO, New York, N. Y.)...Lt. Comdr., U.S.N.R.

Hamilton County

*Buxton O. C., Webster City (APO 9921, New York, N. Y.)...1st Lt., A.U.S.
Howar, B. F., Jewell (APO 514, New York, N. Y.)...Major, A.U.S.
James, D. W., Kamrar (APO 370, New York, N. Y.)...Capt., A.U.S.
Lewis, W. B., Webster City (APO 383, New York, N. Y.)...Major, A.U.S.
Mooney, F. P., Jewell (London, England)...Capt., R.A.M.C.
Paschal, G. A., Williams (Camp Barkeley, Texas)...Capt., A.U.S.
Patterson, R. A., Webster City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.
Ptacek, J. L., Webster City (APO 12845 G, New York, N. Y.)...Capt., A.U.S.
Schrader, M. A., Webster City (Topeka, Kan.)...1st Lt., A.U.S.
Thompson, E. D., Webster City (Biloxi, Miss.)...Capt., A.U.S.

Hancock-Winnebago Counties

Dolmage, G. H., Buffalo Center (Denver, Colo.)...Capt., A.U.S.
Dulmes, A. H., Klemme (APO 782, New York, N. Y.)...Capt., A.U.S.
Eller, L. W., Kanawha (APO 302, New York, N. Y.)...Capt., A.U.S.
Irish, T. J., Forest City (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
Shaw, D. F., Britt (Delhart, Tex.)...Major, A.U.S.
Thomas, C. W., Forest City (Camp Crowder, Mo.)...Capt., A.U.S.

Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.)...Lt., U.S.N.R.
Houlihan, F. W., Ackley (APO 860, New York, N. Y.)...1st Lt., A.U.S.
Jansonius, J. W., Eldora (APO 4834, New York, N. Y.)...Capt., A.U.S.
Johnson, R. J., Iowa Falls (APO 514, New York, N. Y.)...Capt., A.U.S.
Johnson, W. A., Alden (Orlando, Fla.)...Capt., A.U.S.
Shurts, J. J., Eldora (Camp Roberts, Cal.)...1st Lt., A.U.S.
Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
Todd, V. S., Eldora (APO 9641, San Francisco, Cal.)...Capt., A.U.S.

Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Ord, Cal.)...Capt., A.U.S.
Burbridge, G. E., Logan (APO 511, New York, N. Y.)...Major, A.U.S.
Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.)...Capt., A.U.S.
Heise, C. A., Jr., Missouri Valley (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
Tamisiea, F. X., Missouri Valley (APO 562, New York, N. Y.)...Capt., A.U.S.

Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.)...Major, A.U.S.

Dwankowski, Carl, Mt. Pleasant (APO 511, New York, N. Y.).....Capt., A.U.S.
 Gloeckler, B. B., Mount Pleasant (APO 9768, New York, N. Y.).....Capt., A.U.S.
 Hartley, B. D., Mount Pleasant (APO 17130, New York, N. Y.).....Capt., A.U.S.
 Megorden, W. H., Mount Pleasant (Ordan, Utah).....Capt., A.U.S.
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.).....Major, A.U.S.

Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Nierling, P. A., Cresco (APO 43, San Francisco, Cal.).....Capt., A.U.S.

Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.).....Capt., A.U.S.
 Coddington, J. H., Humboldt (Oklahoma City, Okla.).....Capt., A.U.S.

Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.).....Capt., A.U.S.
 Martin, J. W., Holstein (Seymour, Ind.).....Capt., A.U.S.

Iowa County

Geiger, U. S., North English (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 McDaniel, J. D., Marengo (Fort Ord, Cal.).....Capt., A.U.S.
 Miller, D. F., Williamsburg (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.

Jackson County

Bausch, R. G., Bellevue (APO 251, New York, N. Y.).....Capt., A.U.S.
 Skelley, P. B., Jr., Maquoketa (Ft. Lewis, Wash.).....1st Lt., A.U.S.
 Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.).....Major, A.U.S.

Jasper County

Doake, Clarke, Newton.....1st Lt., A.U.S.
 Minkel, R. M., Newton (APO New York, N. Y.).....Major, A.U.S.
 Ritchey, S. J., Newton.....Lt. Col., A.U.S.

Jefferson County

Castell, J. W., Fairfield (APO 9907, New York, N. Y.).....Capt., A.U.S.
 Frey, Harry, Fairfield (Norfolk, Va.).....Lt. Comdr., U.S.N.R.
 Gittler, Ludwig, Fairfield.....Lt. Col., A.U.S.
 Graber, H. E., Fairfield Galesburg, Ill.....Major, A.U.S.
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

Johnson County

Agnew, J. W., Iowa City (APO 17604, New York, N. Y.).....Capt., A.U.S.
 Albert, S. M., Iowa City (Camp White, Ore.).....1st Lt., A.U.S.
 Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.
 Anderson, E. N., Iowa City (APO 647, New York, N. Y.).....Major, A.U.S.
 Boyd, E. J., Iowa City (APO 140, New York, N. Y.).....Capt., A.U.S.
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco, Cal.).....Lt. Col., A.U.S.
 Bunge, R. G., Iowa City (Biloxi, Miss.).....1st Lt., A.U.S.
 Callahan, G. D., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Coburn, F. E., Iowa City (Toronto, Canada).....Capt., R.C.A.
 Cooper, W. K., Iowa City (Mitchell Field, N. Y.).....Capt., A.U.S.
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.).....Capt., A.U.S.
 Diddle, A. W., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Dörner, R. A., Iowa City (APO 534, New York, N. Y.).....Capt., A.U.S.
 Elmquist, H. S., Iowa City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 Emmons, M. B., Iowa City (Abilene, Texas).....Capt., A.U.S.
 Flax, Ellis, Iowa City (APO 5833, New York, N. Y.).....1st Lt., A.U.S.
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.
 Fourn, A. S., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.
 Francis, N. L., Iowa City (Annapolis, Md.).....Lt. (jg), U.S.N.R.
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.
 Garlinghouse, R. O., Iowa City (Ft. Riley, Kan.).....Lt. Col., A.U.S.
 Hardin, R. C., Iowa City (APO 508, New York, N. Y.).....Major, A.U.S.
 Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.
 Hessin, A. L., Iowa City (APO 462, New York, N. Y.).....Major, A.U.S.
 Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 January, L. E., Iowa City (Poyote, Texas).....Major, A.U.S.
 Kanealy, J. F., Iowa City (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.
 Keislar, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.
 Laubscher, J. H., Iowa City (Ft. Benning, Ga.).....1st Lt., A.U.S.
 Longwell, F. H., Iowa City (Daytona, Fla.).....Major, A.U.S.
 Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.
 Naggy, S. F., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.
 Newman, R. W., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.
 Parkin, G. L., Iowa City (Mountain Home, Idaho).....1st Lt., A.U.S.
 Paulus, E. W., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.
 Petersen, V. W., Iowa City (APO 689, New York, N. Y.).....Col., A.U.S.
 Sells, R. L., Jr., Iowa City (Palmdale, Cal.).....Capt., A.U.S.
 Smith, H. F., Iowa City (New York, N. Y.).....Lt. Comdr., U.S.N.R.
 Springer, E. W., Iowa City (APO 678, New York, N. Y.).....Capt., A.U.S.

Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.
 Staggs, W. A., Iowa City (Camp Robinson, Ark.).....Major, A.U.S.
 Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.
 Stump, R. B., Iowa City (Denver, Colo.).....Capt., A.U.S.
 Titus, E. L., Iowa City (Belmont, Mass.).....Col., A.U.S.
 Trapasso, T. J., Iowa City (APO 520, New York, N. Y.).....Capt., A.U.S.
 Trussell, R. E., Iowa City (APO 5467, San Francisco, Cal.).....Capt., A.U.S.
 Vest, W. M., Iowa City (Menlo Park, Cal.).....Capt., A.U.S.
 Ward, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Weatherly, H. E., Iowa City (APO 72, San Francisco, Cal.).....Capt., A.U.S.
 Wollmann, W. W., Iowa City (Staunton, Va.).....1st Lt., A.U.S.
 Ziffren, S. E., Iowa City (Springfield Mo.).....1st Lt., A.U.S.

Junior Members

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.
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 Blair, J. D., Iowa City (APO San Francisco, Cal.).....Major, A.U.S.
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.
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 Carney, R. G., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Connole, J. F., Iowa City (Camp Bowie, Texas).....1st Lt., A.U.S.
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.).....1st Lt., A.U.S.
 Coulson, F. H., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
 Decker, C. E., Iowa City (Oklahoma City, Okla.).....1st Lt., A.U.S.
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 Englerth, F. L., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.
 Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.
 Glassman, A. L., Iowa City (Palm Springs, Cal.).....1st Lt., A.U.S.
 Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.
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 Hendricks, A. B., Iowa City (Klamath Falls, Ore.).....Lt., U.S.N.
 Hovis, Wm., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.
 Jacobs, C. A., Iowa City (APO New York, N. Y.).....Major, A.U.S.
 Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.).....1st Lt., A.U.S.
 Keil, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.
 Kelberg, M. R., Iowa City (Alameda, Cal.).....Lt., U.S.N.R.
 Keleher, M. F., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.
 Keohon, G. F., Iowa City (Camp Grant, Ill.).....Capt., A.U.S.
 Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.
 Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.
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 Moen, B. H., Iowa City.....A.U.S.
 Moon, R. E., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.
 Odell, Lester, Iowa City (Pensacola, Fla.).....Lt. (jg), U.S.N.R.
 Phillips, R. M., Iowa City (San Francisco, Cal.).....1st Lt., A.U.S.
 Pulliam, R. L., Iowa City (APO 350, New York, N. Y.).....Major, A.U.S.
 Randall, C. G., Iowa City.....A.U.S.
 Randall, R. G., Iowa City (Waterloo, Iowa).....Capt., A.U.S.
 Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.
 Russin, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.
 Saar, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
 Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.
 Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Shand, J. A., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Shapiro, S. L., Iowa City.....A.U.S.
 Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.
 Skewis, J. E., Iowa City (Corona, Cal.).....Lt., U.S.N.R.
 Skouge, O. T., Iowa City.....A.U.S.
 Towle, R. A., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.
 Waters, V. G., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.
 Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.
 Williams, L. A., Iowa City (Treasure Island, Cal.).....1st Lt., A.U.S.
 Willmsen, H. C., Iowa City (Denver, Colo.).....Capt., A.U.S.
 Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.
 Yetter, W. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
 Zahrt, N. E., Iowa City (Keesler Field, Miss.).....Capt., A.U.S.
 Zimmerman, H. A., Iowa City (Santa Ana, Cal.).....1st Lt., A.U.S.

Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.).....Capt., A.U.S.
 Doyle, J. L., Sigourney (Camp Barkeley, Texas).....A.U.S.
 Engelmann, A. T., What Cheer (Camp Polk, La.).....Capt., A.U.S.
 Grahm, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.
 Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.
 Wiley, Dudley, Hedrick (Mason City, Wash.).....A.U.S.

Kossuth County

Clapsaddle, D. W., Burt (Denver, Colo.).....Capt., A.U.S.
 Corbin, R. L., Luverne (Des Moines, Iowa).....Capt., A.U.S.

Kenefick, J. N., Algona (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Williams, R. L., Lakota (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Lee County

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.
 Cleary, H. G., Fort Madison (Ft. Benning, Ga.) Capt., A.U.S.
 Cooper, R. E., Keokuk (APO 565, San Francisco, Cal.) Capt., A.U.S.
 Johnston, A. A., Keokuk (APO 942, Seattle, Wash.) Col., A.U.S.
 McKee, T. L., Keokuk (Miami Beach, Fla.) Major, A.U.S.
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) Major, A.U.S.
 Rankin, J. R., Keokuk (Memphis, Tenn.) Lt., U.S.N.R.
 Richmond, A. C., Fort Madison (Treasure Island, Cal.) Lt. Comdr., U.S.N.R.
 Steffey, F. L., Keokuk (Fort Snelling, Minn.) Capt., A.U.S.
 Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.) Capt., A.U.S.
 Younan, Thomas, Ft. Madison (APO 464, New York, N. Y.) Capt., A.U.S.

Linn County

Andre, G. R., Lisbon (APO 90, New York, N. Y.) Lt. Col., A.U.S.
 Berney, P. W., Cedar Rapids (APO 207, New York, N. Y.) Capt., A.U.S.
 Block, W. M., Cedar Rapids (APO 926, San Francisco, Cal.) Capt., A.U.S.
 Chapman, R. M., Cedar Rapids (Chicago, Ill.) Capt., A.U.S.
 Coughlan, V. H., Coggon (Fort Snelling, Minn.) A.U.S.
 Courter, W. O., Springville (APO 464, New York, N. Y.) Major, A.U.S.
 Downing, J. S., Cedar Rapids (APO 565, San Francisco, Cal.) Lt. Col., A.U.S.
 Dunn, F. C., Cedar Rapids (Winfield, Kan.) Major, A.U.S.
 Gearhart, Merriam, Springville (APO 204, New York, N. Y.) Major, A.U.S.
 Gerstman, Herbert, Marion (APO 862, New York, N. Y.) Capt., A.U.S.
 Halpin, L. J., Cedar Rapids (APO 17928, San Francisco, Cal.) Major, A.U.S.
 Hecker, J. T., Cedar Rapids (Camp Bowie, Texas) Capt., A.U.S.
 Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.) Lt. Col., A.U.S.
 Keith, J. J., Marion (Menlo Park, Cal.) Major, A.U.S.
 Kieck, E. G., Cedar Rapids (San Diego, Cal.) Lt. Comdr., U.S.N.R.
 Kruckenberg, W. G., Mount Vernon (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Leedham, C. L., Springville (Camp Campbell, Ky.) Col., A.U.S.
 Locher, R. C., Cedar Rapids (APO 18085, New York, N. Y.) Major, A.U.S.
 Locher, R. C., Cedar Rapids (Camp Gruber, Okla.) Major, A.U.S.
 †MacDougal, R. F., Cedar Rapids (APO 9057, New York, N. Y.) Capt., A.U.S.
 McConkie, E. B., Cedar Rapids (Hines, Ill.) Major, A.U.S.
 McQuiston, J. S., Cedar Rapids (Fort Warren, Wyo.) Lt. Col., A.U.S.
 Meffert, C. B., Cedar Rapids (APO 403, New York, N. Y.) Lt. Col., A.U.S.
 Murray, E. S., Cedar Rapids (APO 787, New York, N. Y.) Major, A.U.S.
 Netolicky, R. Y., Cedar Rapids (Hawthorne, Nev.) Lt. Comdr., U.S.N.R.
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.) 1st Lt., A.U.S.
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.) Major, A.U.S.
 Parke, John, Cedar Rapids Major, A.U.S.
 Proctor, R. D., Cedar Rapids (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) Major, A.U.S.
 Rieniets, J. H., Cedar Rapids, (Charleston, S. Car.) Lt. Comdr., U.S.N.R.
 Sedlacek, L. B., Cedar Rapids (APO 244, San Francisco, Cal.) Lt. Col., A.U.S.
 Smrha, J. A., Cedar Rapids (Topeka, Kan.) Capt., A.U.S.
 Stansbury, J. R., Cedar Rapids (Fort Lewis, Wash.) Capt., A.U.S.
 Stark, C. H., Cedar Rapids (Denver, Colo.) Capt., A.U.S.
 Sulek, A. E., Cedar Rapids (APO 244, San Francisco, Cal.) Major, A.U.S.
 Woodhouse, K. W., Cedar Rapids (APO 519, New York, N. Y.) Lt. Col., A.U.S.
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) Major, A.U.S.
 Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.) Lt. Comdr., U.S.N.R.

Louisiana County

DeYarman, K. T., Morning Sun (San Antonio, Texas) Capt., A.U.S.
 Tandy, R. W., Morning Sun (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Lucas County

Lister, K. E., Chariton (Fort Snelling, Minn.) A.U.S.
 Cook, S. H., Rock Rapids (Memphis, Tenn.) Major, A.U.S.
 †Coreoran, T. E., Rock Rapids (Am. P.O.W. 3040, Oflag 64, Germany) Capt., A.U.S.
 Moriarty, J. F., Rock Rapids (APO 464, New York, N. Y.) Capt., A.U.S.

Madison County

Boden, H. N., Truro (Fresno, Cal.) Capt., A.U.S.
 Chesnut, P. F., Winterset (Camp Gruber, Okla.) Capt., A.U.S.
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) Capt., A.U.S.

Wicks, R. L., Winterset (APO 637, New York, N. Y.) Lt. Col., A.U.S.

Mahaska County

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.) Major, A.U.S.
 Bos, H. C., Oskaloosa Major, A.U.S.
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Clark, G. H., Oskaloosa (Mare Island, Cal.) Lt. Comdr., U.S.N.R.
 Greenlee, M. R., Oskaloosa (Port Hueneme, Cal.) Lt. Comdr., U.S.N.R.
 Lemon, K. M., Oskaloosa (APO 637, New York, N. Y.) Capt., A.U.S.
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.) Capt., A.U.S.

Marion County

Elliott, V. J., Knoxville (APO 558, New York, N. Y.) Major, A.U.S.
 Mater, D. A., Knoxville (Lincoln, Neb.) Major, A.U.S.
 Ralston, F. P., Knoxville (Indio, Cal.) Capt., A.U.S.
 Schiek, C. M., Knoxville Lt. Comdr., U.S.N.R.
 Schroeder, M. C., Pella (Camp Livingston, La.) Capt., A.U.S.
 Williams, D. B., Knoxville Capt., A.U.S.

Marshall County

Carpenter, R. C., Marshalltown (APO 678 New York, N. Y.) Capt., A.U.S.
 Marble, E. J., Marshalltown (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Marble, W. P., Marshalltown (Colorado Springs, Colo.) Major, A.U.S.
 Meyer, M. G., Marshalltown (APO 513, New York, N. Y.) Major, A.U.S.
 Noonan, J. J., Marshalltown (Fort Jackson, S. Car.) Lt. Col., A.U.S.
 Phelps, R. E., State Center (APO 7, San Francisco, Cal.) Capt., A.U.S.
 Sinning, J. E., Melbourne (Rochester, Minn.) Capt., A.U.S.
 Smith, E. M., State Center (APO 520, New York, N. Y.) Lt. Col., A.U.S.
 Stegman, J. J., Marshalltown (APO 520, New York, N. Y.) Major, A.U.S.
 Wells, R. C., Marshalltown (Gowen Field, Idaho) Capt., A.U.S.
 Wolfe, O. D., Marshalltown (APO 937, Seattle Wash.) Capt., A.U.S.
 Wolfe, R. M., Marshalltown (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.

Mills County

DeYoung, W. A., Glenwood (APO 228, New York, N. Y.) Capt., A.U.S.
 Kuitert, J. H., Glenwood (St. Cloud, Minn.) Major, A.U.S.
 Magaret, E. C., Glenwood (APO 973, Minneapolis, Minn.) Capt., A.U.S.
 Shonka, T. E., Malvern (APO 403, New York, N. Y.) Capt., A.U.S.

Mitchell County

Culbertson, R. A., St. Ansgar (APO 957, San Francisco, Cal.) Lt. Col., A.U.S.
 Moore, E. E., Osage (APO 591, New York, N. Y.) Major, A.U.S.
 Owen, W. E., Osage (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
 Walker, T. G., Riceville (Fleet PO, New York, N. Y.) Lt., U.S.N.R.

Monona County

Almer, L. E., Moorhead (Fort Knox, Ky.) Capt., A.U.S.
 Anderson, S. N., Onawa (Great Lakes, Ill.) Lt., U.S.N.R.
 Ganzhorn, H. L., Mapleton (APO 72, San Francisco, Cal.) Capt., A.U.S.
 Gaukel, L. A., Onawa (Fort Riley, Kan.) Capt., A.U.S.
 †Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
 Stauch, M. O., Whiting (Fort Lewis, Wash.) Major, A.U.S.
 Wainwright, M. T., Mapleton (Hines, Ill.) Capt., A.U.S.
 Wolpert, P. L., Onawa (Camp Atterbury, Ind.) Capt., A.U.S.

Monroe County

Gilliland, C. H., Albia (Fleet PO, San Francisco, Cal.) Lt., U.S.N.
 Heimann, V. R., Albia (Camp Maxey, Texas) Capt., A.U.S.
 Richter, H. J., Albia (Waco, Texas) Major, A.U.S.
 Smith, R. A., Albia (New Cumberland, Pa.) Capt., A.U.S.

Montgomery County

Bastron, H. C., Red Oak (APO 951, San Francisco, Cal.) Major, A.U.S.
 Hansen, F. A., Red Oak (Clarksville, Ark.) Lt., U.S.N.R.
 Nelson, C. C., Red Oak (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Panzer, E. J. C., Stanton (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
 Rost, G. S., Red Oak (Halstead, Kan.) Capt., A.U.S.
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) Capt., A.U.S.

Muscataine County

Ady, A. E., West Liberty (Pensacola, Fla.) Comdr., U.S.N.R.
 Asthalter, R. W., Muscatine (Fort Meade, Md.) 1st Lt., A.U.S.
 Carlson, E. H., Muscatine (Milwaukee, Wis.) Capt., A.U.S.
 Goad, R. R., Muscatine (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) Major, A.U.S.
 Lindley, E. L., Muscatine (APO 6, San Francisco, Cal.) Capt., A.U.S.
 Muhs, E. O., Muscatine (APO 578, New York, N. Y.) Major, A.U.S.
 Norem, Walter, Muscatine (APO, Miami, Fla.) Capt., A.U.S.

Robertson, T. A., West Liberty (APO 119, New York, N. Y.) Capt., A.U.S.
 Sywassink, G. A., Muscatine (APO 488, "Y" Forces, New York, N. Y.) Lt. Col., A.U.S.
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.) Lt. Col., A.U.S.

O'Brien County

Getty, E. B., Primghar (APO 739, New York, N. Y.) Capt., A.U.S.
 Hayne, W. W., Paullina (APO 638, New York, N. Y.) Capt., A.U.S.
 Moen, S. T., Hartley (APO 689, New York, N. Y.) Major, A.U.S.
 Myers, K. W., Sheldon (Watertown, S. Dak.) 1st Lt., A.U.S.

Osceola County

Kuntz, G. S., Sibley (APO 34, New York, N. Y.) Capt., A.U.S.

Page County

Barnes, C. A., Shenandoah (Fort Bragg, N. C.) Capt., A.U.S.
 Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.) Capt., A.U.S.
 Bossingham, E. N., Clarinda (Fort Ord, Cal.) Major, A.U.S.
 Bunch, H. McK., Shenandoah (San Diego, Cal.) Lt. Comdr., U.S.N.R.
 Burdick, F. D., Shenandoah (Denver, Colo.) Capt., A.U.S.
 Burnett, F. K., Clarinda (APO 11336, New York, N. Y.) Major, A.U.S.
 Rausch, G. R., Clarinda (Sioux City, Iowa) Capt., A.U.S.
 Savage, L. W., Shenandoah (Fort Meade, Md.) 1st Lt., A.U.S.

Palo Alto County

Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.

Plymouth County

Bowers, C. V., LeMars (APO New York, N. Y.) 1st Lt., A.U.S.
 Fish, R. J., LeMars (Denver, Colo.) Capt., A.U.S.
 Foss, R. H., Remsen (Homestead, Fla.) Capt., A.U.S.
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.) Capt., A.U.S.

Pocahontas County

Blair, F. L., Jr., Fonda (San Antonio, Texas) Lt., U.S.N.R.
 Herrick, T. G., Gilmore City (APO 9875, New York, N. Y.) Capt., A.U.S.
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.) Capt., A.U.S.
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.) Capt., A.U.S.
 Patterson, A. W., Fonda (Des Moines, Iowa) Capt., A.U.S.

Polk County

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Anderson, N. B., Des Moines (APO 667, New York, N. Y.) Lt. Col., A.U.S.
 Angell, C. A., Des Moines (Ft. Bragg, N. Car.) Capt., A.U.S.
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.) Lt. Col., A.U.S.
 Barner, J. L., Des Moines (Atlanta, Ga.) Major, A.U.S.
 Barnes, B. C., Des Moines (Ordan, Utah) Major, A.U.S.
 Bates, M. T., Des Moines (Corona, Cal.) Lt. Comdr., U.S.N.R.
 Bender, H. K., Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Bond, T. A., Des Moines (Shoemaker, Cal.) Lt., U.S.N.R.
 Bone, H. C., Des Moines (Arlington, Cal.) Major, A.U.S.
 Brown, A. W., Des Moines (APO 5934, New York, N. Y.) Capt., A.U.S.
 Bruner, J. M., Des Moines (Camp Barkeley, Texas) Major, A.U.S.
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Burgess, F. M., Des Moines (Gefangenennummer 1480, Lager-Bezeichnung: Kriegsgef-Offizierlager XXI B, Deutschland [Allemagne]) Capt., A.U.S.
 Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada) Flight Lt., R.C.A.F.
 Chambers, J. W., Des Moines (APO 648, New York, N. Y.) Capt., A.U.S.
 Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.) Capt., A.U.S.
 Connell, J. R., Des Moines (APO 507, New York, N. Y.) Major, A.U.S.
 Corn, H. H., Des Moines (Camp Beale, Cal.) Capt., A.U.S.
 Coughlan, D. W., Des Moines (APO 689, New York, N. Y.) Capt., A.U.S.
 Crowley, D. F., Jr., Des Moines (Presque Isle, Me.) Capt., A.U.S.
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.) Capt., A.U.S.
 DeCicco, Ralph, Des Moines (APO 952, San Francisco, Cal.) Capt., A.U.S.
 Decker, H. G., Des Moines (Long Beach, Cal.) Lt. Comdr., U.S.N.R.
 Downing, A. H., Des Moines (Ft. Snelling, Minn.) 1st Lt., A.U.S.
 Dushkin, M. A., Des Moines (APO 689, New York, N. Y.) Lt. Col., A.U.S.
 Elliott, O. A., Des Moines (Pecos, Texas) Capt., A.U.S.
 Ellis, H. G., Des Moines (APO 710, San Francisco, Cal.) Capt., A.U.S.
 Ervin, L. J., Des Moines (Victoria, Texas) Lt. Col., A.U.S.
 Fleck, W. L., Des Moines (Ft. Howard, Md.) Lt. Col., A.U.S.
 Fried, David, Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Fracasse, John, Des Moines 1st Lt., A.U.S.

George, E. M., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Gorchek, E. W., Des Moines Major, A.U.S.
 Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.) Major, A.U.S.
 Glomset, D. A., Des Moines (APO 9826 New York, N. Y.) Capt., A.U.S.
 Goldberg, Louie, Des Moines (APO 926, San Francisco, Cal.) Capt., A.U.S.
 Gordon, A. M., Des Moines (APO 600, New York, N. Y.) Capt., A.U.S.
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Greek, L. M., Des Moines (APO 512, New York, N. Y.) Capt., A.U.S.
 Gurau, H. H., Des Moines (Malden, Mo.) Capt., A.U.S.
 Haines, D. J., Des Moines (APO 453, San Francisco, Cal.) Capt., A.U.S.
 Harris, D. D., Des Moines (Gulfport, Miss.) Lt. Comdr., U.S.N.R.
 Harris, H. L., Des Moines (Salina, Kan.) 1st Lt., A.U.S.
 Hess, John, Jr., Des Moines 1st Lt., A.U.S.
 James, A. D., Des Moines (Fort Eustis, Va.) Comdr., U.S.N.R.
 Johnston, C. H., Des Moines (Randolph Field, Texas) Lt. Col., A.U.S.
 Kast, D. H., Des Moines (Fort Stevens, Ore.) Capt., A.U.S.
 Kelley, E. J., Des Moines (Columbus, Ohio) Lt. Comdr., U.S.N.R.
 Kelly, D. H., Des Moines (Denver, Colo.) Lt. Col., A.U.S.
 Kirch, W. A. W., Des Moines (Astoria, Ore.) Lt. Comdr., U.S.N.R.
 Klockslem, H. L., Des Moines (APO New York, N. Y.) Capt., A.U.S.
 Kottke, E. E., Des Moines (Temple, Texas) Capt., A.U.S.
 Landis, S. N., Des Moines (West Palm Beach, Fla.) 1st Lt., A.U.S.
 La Tona, Salvatore, Des Moines 1st Lt., A.U.S.
 Lederman, James, Des Moines 1st Lt., R.C.A.F.
 Lehman, E. W., Des Moines (APO 711, San Francisco, Cal.) Major, A.U.S.
 Losh, C. W., Jr., Des Moines (APO 209, New York, N. Y.) Capt., A.U.S.
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Maloney, P. J., Des Moines (Fort Lewis, Wash.) 1st Lt., A.U.S.
 Marquis, G. S., Des Moines (Brooklyn, N. Y.) Lt. Comdr., U.S.N.R.
 Martin, L. E., Des Moines (Helena, Ark.) 1st Lt., A.U.S.
 Matheson, J. H., Des Moines (San Leandro, Cal.) Lt. Comdr., U.S.N.R.
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.) Capt., A.U.S.
 McCoy, H. J., Des Moines (Iowa City, Iowa) Comdr., U.S.N.R.
 McDonald, D. J., Des Moines (APO 339, New York, N. Y.) Major, A.U.S.
 McNamee, J. H., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Mencher, E. W., Des Moines 1st Lt., A.U.S.
 Merkel, B. M., Des Moines (APO 520, New York, N. Y.) Major, A.U.S.
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.) Capt., A.U.S.
 Morden, R. P., Des Moines (APO 635, New York, N. Y.) Capt., A.U.S.
 Mumma, C. S., Des Moines (Los Angeles, Cal.) Major, A.U.S.
 Murphy, J. H., Des Moines (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Nelson, A. L., Des Moines (Camp Livingston, La.) Major, A.U.S.
 Noun, L. J., Des Moines (Camp Peary, Va.) Lt., U.S.N.R.
 Noun, M. H., Des Moines (APO 228, New York, N. Y.) Major, A.U.S.
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.) Lt., U.S.N.
 Patton, B. W., Des Moines (Camp Robinson, Ark.) 1st Lt., A.U.S.
 Pearlman, L. R., Des Moines (Battle Creek, Mich.) Major, A.U.S.
 Peisen, C. J., Des Moines (APO 165, New York, N. Y.) Capt., A.U.S.
 Penn, E. C., West Des Moines (APO 650, New York, N. Y.) Capt., A.U.S.
 Pfeiffer, E. P., Des Moines (APO 501, San Francisco, Cal.) Capt., A.U.S.
 Phillips, A. B., Des Moines (Corona, Cal.) Lt., U.S.N.R.
 Porter, R. J., Des Moines (APO 635, New York, N. Y.) Capt., A.U.S.
 Powell, L. D., Des Moines (Oceanside, Cal.) Capt., U.S.N.R.
 Pratt, E. B., Des Moines (APO New York, N. Y.) Major, A.U.S.
 Priestley, J. B., Des Moines (Indiantown Gap, Penn.) Lt. Col., A.U.S.
 Purdy, W. O., Des Moines (APO 5935, New York, N. Y.) Capt., A.U.S.
 Riegelman, R. H., Des Moines (APO 559, New York, N. Y.) Major, A.U.S.
 Robinson, V. C., Des Moines (Gulfport, Miss.) Major, A.U.S.
 Rotkow, M. J., Des Moines (Ft. Benj. Harrison, Ind.) Capt., A.U.S.
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Schlaser, V. L., Des Moines (Fleet PO, San Francisco, Cal.) Lt., U.S.N.
 Shepherd, L. K., Des Moines (APO New York, N. Y.) Major, A.U.S.
 Shiffer, H. K., Des Moines (APO 230, New York, N. Y.) Capt., A.U.S.
 Singer, P. L., Des Moines (Camp Grant, Ill.) 1st Lt., A.U.S.
 Skultety, J. A., Des Moines (New Orleans, La.) P. A. Surg., U.S.P.H.S.

Smead, H. H., Des Moines (APO 141, New York, N. Y.).....Capt., A.U.S.
 Smith, H. J., Des Moines (Chicago, Ill.).....Lt., U.S.N.R.
 Smith, R. T., Des Moines (APO 713, Unit I, San Francisco, Cal.).....Capt., A.U.S.
 *Snodgrass, R. W., Des Moines (APO 9528, New York, N. Y.).....Capt., A.U.S.
 Snyder, G. E., Grimes (APO 264, San Francisco, Cal.).....Major, A.U.S.
 Sohm, H. A., Des Moines.....Lt. Comdr., U.S.N.R.
 Sorensen, R. M., Des Moines (Topeka, Kan.).....Major, U.S.P.H.S.
 Springer, F. A., Des Moines (Treasure Island, Cal.).....Lt. Comdr., U.S.N.R.
 Stearns, A. B., Des Moines (Denver, Colo.).....Major, A.U.S.
 Stickler, Robert, Des Moines (APO New York, N. Y.).....Major, A.U.S.
 Stitt, P. L., Des Moines (Seattle, Wash.).....Lt. (jg), U.S.N.R.
 Throckmorton, J. F., Des Moines (APO 339, New York, N. Y.).....Major, A.U.S.
 Toubes, A. A., Des Moines (APO 635, New York, N. Y.).....Capt., A.U.S.
 Turner, H. V., Des Moines (Camp Fannin, Texas).....Capt., A.U.S.
 Updegraff, Thomas, Des Moines (Spokane, Wash.).....1st Lt., A.U.S.
 Van Hale, L. A., Des Moines (APO 515, New York, N. Y.).....Capt., A.U.S.
 Vaubel, E. K., Des Moines (Washington, D. C.).....Capt., A.U.S.
 Wagner, E. C., Des Moines (Washington, D. C.).....1st Lt., A.U.S.
 Willett, W. M., Des Moines (APO 507, New York, N. Y.).....Capt., A.U.S.
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Zarchy, A. C., Des Moines (Camp Cooke, Cal.).....Capt., A.U.S.

Pottawattamie County

†Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.).....Major, A.U.S.
 Collins, R. M., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Dean, A. M., Council Bluffs (Pensacola, Fla.).....Comdr., U.S.N.R.
 Edwards, C. V., Council Bluffs (Pensacola, Fla.).....Lt. Comdr., U.S.N.R.
 Floersch, E. B., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Hennessy, J. D., Council Bluffs (Shawnee, Okla.).....Lt. Comdr., U.S.N.R.
 Jensen, A. L., Council Bluffs (Temple, Texas).....Lt. Col., A.U.S.
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.).....Lt., U.S.N.R.
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.).....Capt., A.U.S.
 Lambert, E. M., Council Bluffs (APO 403, New York, N. Y.).....Major, A.U.S.
 Maiden, S. D., Council Bluffs (Camp Hood, Texas).....Major, A.U.S.
 Martin, L. R., Council Bluffs (San Francisco, Cal.).....Capt., A.U.S.
 Mathiasen, H. W., Neola (Alexandria, La.).....Capt., A.U.S.
 Moskovitz, J. M., Council Bluffs (APO 403, New York, N. Y.).....Capt., A.U.S.
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.).....Capt., A.U.S.
 Standeven, W., Oakland (Colorado Springs, Colo.).....Capt., A.U.S.
 Sternhill, Isaac, Council Bluffs (Springfield, Mo.).....Capt., A.U.S.
 Tinley, R. E., Council Bluffs (APO 600, New York, N. Y.).....Major, A.U.S.
 Treynor, J. V., Council Bluffs (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 West, A. G., Council Bluffs (APO 230, New York, N. Y.).....Capt., A.U.S.
 Wieseler, R. J., Avoca (McChord Field, Wash.).....A.U.S.
 Wurl, O. A., Council Bluffs (APO 887, New York, N. Y.).....Lt. Col., A.U.S.

Poweshiek County

Brobyn, T. E., Grinnell (Camp Swift, Texas).....Major, A.U.S.
 Hickerson, L. C., Brooklyn (APO 559, New York, N. Y.).....Capt., A.U.S.
 Korfmacher, E. S., Grinnell (APO 92, San Francisco, Cal.).....Capt., A.U.S.
 Niemann, T. V., Brooklyn (APO 43, San Francisco, Cal.).....Capt., A.U.S.
 Parish, J. R., Grinnell (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Somers, P. E., Grinnell (St. Louis, Mo.).....1st Lt., A.U.S.

Ringgold County

Seaman, C. L., Mount Ayr (Fort Smith, Ark.).....Major, A.U.S.

Sac County

Bassett, G. H., Sac City (Metairie, La.).....Lt. Comdr., U.S.N.R.
 Deters, D. C., Schaller (APO 34, New York, N. Y.).....Capt., A.U.S.
 Evans, W. L., Sac City (APO 9212, New York, N. Y.).....Capt., A.U.S.
 Klecksiem, R. G., Odebolt (Oceanside, Cal.).....Lt., U.S.N.R.
 Neu, H. N., Sac City (APO 708, San Francisco, Cal.).....Lt. Col., A.U.S.

Scott County

†Baker, R. W., Davenport (APO 511, New York, N. Y.).....Capt., A.U.S.
 Balzer, W. J., Davenport (APO 569, New York, N. Y.).....Capt., A.U.S.
 Bishop, J. F., Davenport (Camp Wheeler, Ga.).....Capt., A.U.S.
 Block, L. A., Davenport (Cambridge, Ohio).....Major, A.U.S.
 Boden, W. C., Davenport (APO 3760, New York, N. Y.).....Capt., A.U.S.
 Boyer, U. S., Davenport (Rock Island, Ill.).....Lt. Col., A.U.S.
 Brown, M. J., Davenport (APO 562, New York, N. Y.).....Major, A.U.S.
 Carey, E. T., Davenport (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.

Christiansen, C. C., Dixon (APO 961, San Francisco, Cal.).....Capt., A.U.S.
 Coleman, Tom, Davenport (APO 230, New York, N. Y.).....Capt., A.U.S.
 Cummins, G. M., Jr., Davenport (Fort Custer, Mich.).....Capt., A.U.S.
 Decker, C. E., Davenport (APO 321, San Francisco, Cal.).....Major, A.U.S.
 Evans, H. J., Davenport (Daytona Beach, Fla.).....Capt., A.U.S.
 Gibson, P. E., Davenport (Palm Springs, Cal.).....Major, A.U.S.
 Goenne, Wm., Jr., Davenport (APO 91, New York, N. Y.).....Capt., A.U.S.
 Hurevitz, H. M., Davenport (APO 370, New York, N. Y.).....Major, A.U.S.
 Hurteau, Everett, Davenport (APO 647, New York, N. Y.).....Capt., A.U.S.
 Hurteau, W. W., Davenport (Camp Berkeley, Texas).....Major, A.U.S.
 Kimberly, L. W., Davenport (Hines, Ill.).....Capt., A.U.S.
 Krakauer, Max, Davenport (APO 655, New York, N. Y.).....Capt., A.U.S.
 Kuhl, A. B., Jr., Davenport (Ft. Meade, Md.).....1st Lt., A.U.S.
 LaDage, L. H., Davenport (APO 229, New York, N. Y.).....Major, A.U.S.
 Lorfeld, G. W., Davenport (Columbus, Ohio).....Capt., A.U.S.
 McMeans, T. W., Davenport (APO 557, New York, N. Y.).....Capt., A.U.S.
 Neufeld, R. J., Davenport (APO 565, Unit I, San Francisco, Cal.).....Capt., A.U.S.
 Perkins, R. M., Davenport (APO 121B, New York, N. Y.).....Capt., A.U.S.
 Sheeler, I. H., Davenport (APO 350, New York, N. Y.).....Capt., A.U.S.
 Shorey, J. R., Davenport (APO 204, New York, N. Y.).....Capt., A.U.S.
 Smazal, S. F., Davenport (APO 230, New York, N. Y.).....Capt., A.U.S.
 Sorenson, A. C., Davenport (Oakland, Cal.).....Comdr., U.S.N.R.
 Sunderbruch, J. H., Davenport (APO 322, San Francisco, Cal.).....Capt., A.U.S.
 Weinberg, H. B., Davenport (APO 72, San Francisco, Cal.).....Major, A.U.S.
 Zukerman, C. M., Bettendorf (Chicago, Ill.).....Capt., A.U.S.

Shelby County

Bisgard, C. V., Harlan (Farragut, Idaho).....Lt. Comdr., U.S.N.R.
 Griffith, W. O., Shelby (APO 9490, New York, N. Y.).....Capt., A.U.S.
 McGowan, J. P., Harlan (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

Sioux County

Gleysteen, R. R., Alton (Portsmouth, Va.).....Lt. Comdr., U.S.N.
 Grossmann, E. B., Orange City (APO 403, New York, N. Y.).....Capt., A.U.S.
 Larson, M. O., Hawarden (APO 562, New York, N. Y.).....Lt. Col., A.U.S.
 Oelrich, A. M., Hull (APO New York, N. Y.).....1st Lt., A.U.S.
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.).....1st Lt., A.U.S.

Story County

Conner, J. D., Nevada (APO 708, San Francisco, Cal.).....Capt., A.U.S.
 Fellows, J. G., Ames (APO 451, New York, N. Y.).....Major, A.U.S.
 Lekwa, A. H., Story City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 McFarland, J. E., Jr., Ames (San Pedro, Cal.).....Lt., U.S.N.R.
 McFarland, J. E., Ames (Seattle, Wash.).....Lt. Comdr., U.S.N.R.
 Rosebrook, L. E., Ames (APO 433, New York, N. Y.).....Major, A.U.S.
 Sperow, W. B., (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Thorburn, O. L., Ames (Clovis, N. Mex.).....Major, A.U.S.
 Wall, David, Ames (Ft. Dix, N. J.).....1st Lt., A.U.S.

Tama County

Bezman, H. S., Traer (APO 9875, New York, N. Y.).....Capt., A.U.S.
 Boller, G. C., Traer (Ft. Riley, Kansas).....Capt., A.U.S.
 Dobias, S. G., Chelsea (APO 17928, San Francisco, Cal.).....Capt., A.U.S.
 Havlik, A. J., Tama (San Diego, Cal.).....Lt., U.S.N.R.
 Schaeferle, L. G., Gladbrook (APO New York, N. Y.).....Capt., A.U.S.
 Standefer, J. M., Tama (Des Moines, Iowa).....Lt., U.S.N.R.

Taylor County

Hardin, J. F., Bedford (APO 952, San Francisco, Cal.).....1st Lt., A.U.S.

Union County

Beatty, H. G., Creston (New Orleans, La.).....1st Lt., A.U.S.
 Paragas, M. R., Creston (APO 442, San Francisco, Cal.).....Capt., A.U.S.
 Ryan, C. J., Creston.....Capt., A.U.S.

Wapello County

Brentan, Emanuel, Ottumwa (APO 252, New York, N. Y.).....1st Lt., A.U.S.
 Brody, Sidney, Ottumwa.....Lt. Col., A.U.S.
 Gilfillan, C. D. N., Eldon (Battle Creek, Mich.).....Capt., A.U.S.
 Hughes, R. O., Ottumwa (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Moore, G. C., Ottumwa (APO 17508, New York, N. Y.).....Capt., A.U.S.
 Nelson, F. L., Jr., Ottumwa (Springfield, Mo.).....Capt., A.U.S.
 Prewitt, L. H., Ottumwa (Atlantic City, N. J.).....Major, A.U.S.
 Selman, R. J., Ottumwa (El Paso, Texas).....Col., A.U.S.
 Struble, G. C., Ottumwa (Fort Harrison, Ind.).....Lt. Col., A.U.S.
 Whitehouse, W. N., Ottumwa (San Diego, Cal.).....Lt. Comdr., U.S.N.R.

Warren County

Fullgrabe, E. A., Indianola (Fleet PO, New York, N. Y.)Lt., U.S.N.R.
Hoffman, G. R., Lacona (Camp San Louis Obispo, Cal.)Capt., A.U.S.
Shaw, E. E., Indianola (APO 834, New Orleans, La.)Capt., A.U.S.
Trueblood, C. A., Indianola (APO 350, New York, N. Y.)Capt., A.U.S.

Washington County

Boice, C. L., Washington (Fleet PO, San Francisco, Cal.)Lt., U.S.N.
Droz, A. K., Washington (Fleet PO, San Francisco, Cal.)Comdr., U.S.N.R.
Mast, T. M., Washington (Long Beach, Cal.)Lt. Comdr., U.S.N.R.
Miller, J. R., Wellman (APO New York, N. Y.)1st Lt., A.U.S.
Stuysman, R. E., Washington (Patuxent River, Md.)Lt., U.S.N.R.
Ware, S. C., Kalona (APO 218, New York, N. Y.)Capt., A.U.S.

Wayne County

Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.)Capt., A.U.S.

Webster County

Baker, C. J., Fort Dodge (APO New York, N. Y.)Major, A.U.S.
Burch, E. S., Dayton (Palm Springs, Cal.)Capt., A.U.S.
Curlson, M. W., Fort Dodge (Pasadena, Cal.)Capt., A.U.S.
Coughlan, C. H., Fort Dodge (Fort Des Moines, Iowa)Major, A.U.S.
Dawson, E. B., Fort Dodge (San Diego, Cal.)Lt. Comdr., U.S.N.R.
Glesne, O. N., Ft. Dodge (New River, N. C.)Lt. Comdr., U.S.N.R.
Joyer, N. M., Fort Dodge (Minneapolis, Minn.)A.U.S.
Kluever, H. C., Fort Dodge (St. Louis, Mo.)Lt. Comdr., U.S.N.R.
Larsen, H. T., Fort Dodge (Pensacola, Fla.)Lt., U.S.N.R.
Shrader, J. C., Fort Dodge (APO 758, New York, N. Y.)Lt. Col., A.U.S.
†Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.)Capt., A.U.S.
Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.)Capt., A.U.S.
Van Patten, E. M., Ft. Dodge (El Paso, Texas)Capt., A.U.S.

Winneshiak County

Fritchen, A. F., Decorah (Mare Island, Cal.)Comdr., U.S.N.R.
Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.)Lt. Col., A.U.S.
Howard, W. H., DecorahCapt., A.U.S.
Larson, L. E., Decorah (Fleet PO, San Francisco, Cal.)Lt. Comdr., U.S.N.R.
Svendsen, R. N., Decorah (San Diego, Cal.)Lt. (jg), U.S.N.R.
Van Besien, G. J., Decorah (Springfield, Mo.)Capt., A.U.S.

Woodbury County

Bettler, P. L., Sioux City (APO 235, San Francisco, Cal.)Lt. Col., A.U.S.
Blackstone, M. A., Sioux City (Camp Stoneman, Cal.)Capt., A.U.S.
Boe, Henry, Sioux City (Fort Snelling, Minn.)Capt., A.U.S.
Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.)Lt., U.S.N.R.
†Cmeyla, P. M., Sioux City (P.O.W., c/o Japanese Red Cross, Tokyo, Japan)Capt., A.U.S.
Cowan, J. A., Sioux City (Oklahoma City, Okla.)Major, U.S.P.H.S.
Crowder, R. E., Sioux City (Kansas City, Mo.)Lt. Comdr., U.S.N.R.
Dimsdale, L. J., Sioux City (Clinton, Iowa)Capt., A.U.S.
Down, H. L., Sioux City (APO 758, New York, N. Y.)Lt. Col., A.U.S.
Elson, V. J., Danbury (APO 9875, New York, N. Y.)Capt., A.U.S.
Frank, L. J., Sioux City (Fleet PO, San Francisco, Cal.)Comdr., U.S.N.R.
Graham, J. W., Sioux City (Pensacola, Fla.)Lt. Comdr., U.S.N.R.
Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.)Capt., A.U.S.
Harris, D. M., Sioux City (APO 444, New York, N. Y.)Capt., A.U.S.
Heffernan, C. E., Sioux City (APO 17682, San Francisco, Cal.)Capt., A.U.S.
Hicks, W. K., Sioux City (Spokane, Wash.)Major, A.U.S.
Honke, E. M., Sioux City (Palm Springs, Cal.)Major, A.U.S.
Kaplan, David, Sioux City (APO 36, New York, N. Y.)Capt., A.U.S.
Knott, P. D., Sioux City (Camp Crowder, Mo.)Capt., A.U.S.
Knott, R. C., Sioux City (APO 403, New York, N. Y.)Major, A.U.S.
Krigsten, W. M., Sioux City (Springfield, Mo.)Lt. Col., A.U.S.
Lande, J. N., Sioux City (APO 63, New York, N. Y.)Major, A.U.S.
Martin, R. F., Sioux City (APO 403, New York, N. Y.)Capt., A.U.S.
Mattice, L. H., Danbury (APO 713, San Francisco, Cal.)1st Lt., A.U.S.
McCuiston, H. M., Sioux City (APO 209, New York, N. Y.)Capt., A.U.S.
Mugan, R. C., Sioux City (Miami Beach, Fla.)Capt., A.U.S.
Osincup, P. W., Sioux City (APO 520, New York, N. Y.)Capt., A.U.S.
Rarick, I. H., Sioux City (Camp Pinedale, Cal.)Capt., A.U.S.
Reeder, J. E., Jr., Sioux City (APO 209, New York, N. Y.)Capt., A.U.S.

Ryan, M. J., Sioux City (Topeka, Kan.)Major, A.U.S.
Schwartz, J. W., Sioux City (APO 883, New York, N. Y.)Lt. Col., A.U.S.
Tracy, J. S., Sioux City (APO 569, New York, N. Y.)Major, A.U.S.

Worth County

Westly, G. S., Manly (APO 927, San Francisco, Cal.)Major, A.U.S.

Wright County

Aagesen, C. A., Dows (APO 383, New York, N. Y.)Capt., A.U.S.
Bird, R. G., Clarion (Fleet PO, San Francisco, Cal.)Lt. Comdr., U.S.N.R.
Doles, E. A., Clarion (Spokane, Wash.)Capt., A.U.S.
Gorrell, R. L., Clarion (Denver, Colo.)P.A. Surg., U.S.P.H.S.
Leinbach, S. P., Belmond (Farragut Air Base, Idaho)Capt., A.U.S.
Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.)Capt., A.U.S.

(*) Reported missing in action.
(†) Reported deceased in service.
(‡) Reported prisoner of war.

EXAMINATIONS OF THE AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The general oral and pathology examinations (Part II) for all candidates will be conducted at Atlantic City, New Jersey, by the entire Board from Thursday, June 14, through Tuesday, June 19, 1945. The Hotel Shelburne in Atlantic City will be the headquarters for the Board. Formal notice of the exact time of each candidate's examination will be sent him several weeks in advance of the examination dates. Hotel reservations may be made by writing direct to the Hotel.

Candidates for reexamination in Part II must make written application to the Secretary's Office not later than April 15, 1945.

The Office of the Surgeon-General (U. S. Army) has issued instructions that men in service, eligible for Board examinations, be encouraged to apply and that they may request orders to detached duty for the purpose of taking these examinations whenever possible. Candidates in military or naval service are requested to keep the Secretary's Office informed of any change in address.

Deferment without time penalty under a waiver of our published regulations applying to civilian candidates, will be granted if a candidate in service finds it impossible to proceed with the examinations of the Board.

Applications are now being received for the 1946 examinations. For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

CHANGE OF ADDRESS

Help your central office to maintain an accurate mailing list.
Send your changes of address promptly to The Journal,
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WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

President—MRS. JAY C. DECKER, Sioux City

President-Elect—MRS. SOREN S. WESTLY, Manly

Secretary—MRS. ALLEN C. STARRY, Sioux City

Treasurer—MRS. ARTHUR E. MERKEL, Des Moines

AMA PLATFORM

The following platform of the American Medical Association was adopted by the House of Delegates at its meeting June 13, 1944:

1. Availability of medical care of high quality to every person in the United States.
 - A. In the extension of medical services to all people, the utmost utilization of qualified medical and hospital facilities already established.
 - B. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability, including the development and extension of voluntary hospital insurance and voluntary medical insurance.
 - C. Expansion of public health and medical services consistent with the American system of democracy.
 - D. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health, and the care of the sick on proof of such need.
 - E. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
 - F. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
 - G. The extension of medical care for the indigent and the medically indigent with local determination and local control of administration.
 - H. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

JOINT COMMITTEE ON POSTWAR MEDICAL SERVICE

The following address by Roger I. Lee, M.D., President-Elect of the American Medical Association, was given before the first conference of state presidents, presidents-elect, and chairmen of standing committees of the Woman's Auxiliary to the Ameri-

can Medical Association held in Chicago November 16 and 17, 1944, and is reprinted from the December 1944 issue of the *Bulletin*:

I would like to tell you briefly about the activities of the Joint Committee on Postwar Medical Service. This is a joint committee of the American Medical Association, the American College of Physicians and the American College of Surgeons.

In order to determine what returning medical officers wanted, the Committee sent out 60,000 questionnaires with the cooperation of Lt. Colonel Lueth. 18,000 replies are already received, which was surprising indeed to the Committee. The replies, according to age groups, were closely similar. The older men want to return to their practices. The younger men, however, because of the fact that their medical careers were shortened in the accelerated program and because their medical experience in the service has been rather limited, often want two or three years in post-graduate work rather than the short refresher courses.

The replies presented some very interesting pictures. Only 10 per cent want to remain in Government service; some have notions of joining groups; not many are interested in industrial medicine; very few have any ideas of wearing the academic toga of the professor in the medical school. It is obvious that we are going to need about twice as many internships and residencies as we have had in the past, and the Council on Hospitals and Medical Education of the American Medical Association is very active in this regard.

This Committee was formed two years ago with the idea of aiding the returning medical officers. A sub-committee was appointed to confer with the Veterans Administration in Washington, which is empowered to administer benefits for returned service men. At first it appeared that the Veterans Administration would regard only those under twenty-five years of age as having had their training and education interrupted by their entrance into service but now they have decided that all medical officers, regardless of age, will be regarded as having had their education interrupted.

The men are to receive varying amounts of training. They are entitled to \$500 a year for tuition paid directly to the institution selected; hospitals providing advanced training are to be included in this category. There will be no distinction between officers and enlisted men. Everybody gets \$50.00 a month for maintenance if single, and a little more if married.

The Committee has plans to set up an office of information in Chicago at the American Medical Association headquarters for the returning medical officers. The purpose of this bureau will be to tell these men where opportunities are available and where they can find whatever they want in the

war of relocation. The timing of this plan is, of course, very important and very difficult. The Surgeon Generals of the Army and Navy have worked very closely with this Committee but it is impossible for them to tell when they will be able to send our medical men back home. A good deal depends on the action of Congress and whether it will be willing to make certain appropriations and whether it will vote some form of universal military service.

The American Medical Association has very valuable information as to what the returning medical officers want and is determined to give it to them if it is at all possible.

WHITE TEETH*

"Who said your teeth should be white? Not your dentist. 'Who wants white teeth, anyway?' asks the Council on Dental Therapeutics of the American Dental Association. The natural color of teeth is not white, except perhaps to the imaginative or uninformed writer of advertising copy; rather, it varies from pale ivory to a more or less pronounced yellowish hue.

"As for stains, there are many variables involved in the formation of stains on teeth. Some stains are not on the teeth, but IN the teeth . . .

"The Council on Dental Therapeutics has been conducting for fourteen years a vigilant crusade for public health. Established by the American Dental Association in 1930 to assist in the protection of the public from fraud and imposition, the Council operates to prevent unscrupulous manufacturers from foisting products on the public which may not only fail to fulfill extravagant promises, but may also work actual damage on the teeth and oral tissues . . .

"Composed of twelve members chosen by the American Dental Association on the basis of character and ability in their respective fields of biophysics, chemistry, bacteriology, medicine and dentistry, the Council operates in conjunction with a well equipped chemical laboratory in the ADA Bureau of Chemistry. None of the members receives financial remuneration for his services. A full-time secretary and staff are employed by the Council . . .

"In the interest of public health, the American people should use only those brands of dentifrices which bear the seal of the Council and be advised not to rely on mouthwashes as curative or prophylactic agents. They should be advised to avoid toothache poultices, toothache gums and toothache drops; not to rely on stain removers; not to eat excessive amounts of sweets; not to depend wholly on liquid dentifrices because they may not be efficient cleansing agents; and not to rely on chewing gum for improvement of their oral health. Everyone should know that virtually his only hope of maintaining oral health is to visit his dentist at least every six months and to follow his advice in mouth hygiene.

"The public should be informed that the knowledge of the Council members and the findings of the

Bureau of Chemistry are at their disposal without charge. The Council, located in the headquarters of the American Dental Association at 222 E. Superior St., Chicago, Ill., now answers thousands of inquiries from the public each year. It is hoped that this number will be multiplied many times when more people are told by their dentists the meaning behind the Council's seal of acceptance."

*Excerpts from Donald A. Wallace's article "White Teeth" in the November, 1944, issue of *Hygeia*.

Meeting of the Dallas-Guthrie Auxiliary

Following a joint luncheon with the doctors in the Rotary Club room in Adel, the Dallas-Guthrie Auxiliary met in the Public Library Thursday afternoon, January 18. Mrs. C. E. Porter of Redfield, retiring president, was in the chair. The minutes of the last regular meeting were read and approved; the treasurer and chairmen of standing committees presented annual reports; and the *Hygeia* chairman reported thirty subscriptions.

Mrs. K. M. Chapler of Dexter, the new president, appointed standing committees for 1945. She stressed the fact that with a membership of twenty-two, many of whom are not active, there will be essential overlapping of duties, but the Auxiliary will continue to function. Concentration will be centralized upon subscriptions to *Hygeia* and *The Bulletin*.

The program consisted of questions and answers chosen from Dr. W. W. Bauer's book "Health Questions Answered."

Mrs. P. W. Beckman

MEETING OF THE POLK COUNTY AUXILIARY

Members of the Polk County Medical Auxiliary met for a luncheon meeting in Des Moines at Younkers Tea Room Friday afternoon, January 19. Election of officers was held and Mrs. Russell C. Doolittle was named president of the group for the ensuing year. Other officers elected were Mesdames George H. Waters, president-elect; James W. Young, vice president; Byron M. Merkel, secretary; and Noble W. Irving, treasurer.

SPEAKERS BUREAU RADIO SCHEDULE

WOI Tuesdays at 1:00 p. m.

WSUI Thursdays at 9:00 a. m.

March 6-8	American Red Cross	Lauren R. Moriarty, M.D.
March 13-15	The Care of Throat Infections	John E. Stansbury, M.D.
March 20-22	Common Symptoms of Gallbladder Disease	Elliott C. Cobb, M.D.
March 27-29	The Dangers of Food Poisoning	Fred Montz, M.D.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. WALTER L. BIERRING, Des Moines, Chairman

DR. HENRY G. LANGWORTHY, Dubuque, *Secretary*

DR. JOHN T. MCCLINTOCK, Iowa City

DR. MURDOCH BANNISTER, Ottumwa

DR. FRANK E. SAMPSON, Creston

Medical History of Wapello County

CLYDE A. HENRY, M.D., Farson

(Continued from last month)

Part IV

A COMPENDIUM OF WAPELLO COUNTY MEDICAL HISTORY FROM 1853 TO 1945

Not long after its reorganization in 1870, the activities of the Wapello County Medical Society spread to other sections of the state. Excellent programs were offered regularly, and physicians from surrounding towns and villages were invited to attend. This new movement of scientific and social intercourse proved to be so popular that guest speakers from Des Moines to Keokuk were soon participating. Finally, and in furtherance of this "Good Neighbor" policy, the Wapello County Medical Society extended a call to the physicians of adjacent and surrounding counties to unite in the formation of an Auxiliary Association in which all who chose might share the responsibilities and benefits alike. Pursuant to this invitation, a meeting was held at the Lewis Opera House in Ottumwa, January 7, 1873. The following physicians were present and their names enrolled: J. P. Gruwell, H. C. Huntsman, D. A. Hurst, F. W. Coolidge, all of Oskaloosa; W. E. Chamberlain of Beacon; W. S. Lambert of Albia; J. C. Ware of Fairfield; A. W. McClure of Mt. Pleasant; M. B. V. Howell and J. V. Bean of Moulton; A. R. Weir and E. H. Brumbaugh of Agency City; A. C. Olney and B. F. Hyatt of Chillicothe; G. L. Johnson of Eddyville; W. L. Orr, S. B. Thrall, J. Williamson, G. F. Foster, T. J. Douglass, S. R. Mitchell, S. C. McCullough, J. C. Hinsey, E. L. Lathrop, C. G. Lewis, and A. Hawkins of Ottumwa; and W. W. Fierce of Bloomfield.

The meeting was called to order by Dr. S. B. Thrall, who had served as chairman of the committee on arrangements. Dr. T. J. Douglass was appointed chairman pro tem and J. V. Bean, secretary. Dr. W. L. Orr, then mayor of Ottumwa,

delivered an address of welcome on behalf of the city, and Dr. Williamson followed with a formal address on behalf of the Wapello County Medical Society. The necessary committees were appointed to perfect a permanent organization; and after adopting a constitution and by-laws, the meeting was adjourned to meet again at seven o'clock, at which time officers were elected for the ensuing year, as follows: President, H. C. Huntsman; vice president, M. B. V. Howell; secretary-treasurer, Jefferson Williamson; assistant secretary, G. L. Johnson; censors, S. B. Thrall, W. E. Chamberlain, D. A. Hurst, C. G. Lewis, and A. W. McClure. By unanimous vote, Dr. Williamson was declared permanent secretary of the new society—The Des Moines Valley Medical Association—the duties of which office he faithfully performed through the following ten years. During the first seven years, the Association met in January and June of each year in various towns within the district. For three years annual meetings were held in like manner. In 1883 the Association voted to hold annual meetings permanently in Ottumwa, Wapello County, on the "first Thursday in June, or such time as the president and secretary shall name." In accordance with this policy, the Des Moines Valley Medical Association met annually for a period of fifty-five consecutive years, the last meeting having been held in Ottumwa on Thursday, April 28, 1938. An excellent program, beginning at 3:30 p. m. in Hotel Ottumwa, was successfully executed, at the conclusion of which the following officers were elected for the year 1939: President, E. B. Wilcox, Oskaloosa; first vice president, John Dulin, Sigourney; second vice president, Clyde Henry, Farson;

secretary-treasurer, E. B. Howell, Ottumwa; censors, E. B. Hoeven, Ottumwa; C. T. Slavin, Moravia; and Burke Powell, Albia. However, the 1939 meeting was not called; nor has there since been a meeting of that old and honorable institution, the Des Moines Valley Medical Association, whose activities, from the day of its organization in 1873, through the sixty-five consecutive years that followed, constitute such a colorful chapter in the history of medicine in Wapello County and southeastern Iowa. Its standards were high, its fellowship warm and welcoming; the annual gathering of its distinguished membership served the purpose of its founders well. May its stimulating

in Columbus, Ohio, in 1849. He attended lectures at Starling Medical College in 1851-52, obtained the degree B.A. at Kenyon College in 1851, M.D. at the University of New York in 1853, and M.A. at Kenyon College in 1855. He practiced a year with his father at Columbus, Ohio, before graduating, and at Belle Center, Ohio, from April, 1854, to November, 1855. He then returned to Columbus and married Mary Brooks. Soon after his marriage he came west and located in Ottumwa in May, 1856, where he successfully engaged in the practice of medicine until February, 1862, when he was appointed Surgeon in the Military Hospital at Keokuk, Iowa. In November of that year he



PRESIDENTS OF THE IOWA STATE MEDICAL SOCIETY FROM WAPELLO COUNTY

- | | | | |
|---------------------------|--------------------------------|-----------------------------|--------------------------|
| 1. S. B. Thrall (1870) | 2. Jefferson Williamson (1873) | 3. J. C. Hinsey (1888) | 4. D. C. Brockman (1905) |
| 5. John F. Herrick (1917) | 6. Smith A. Spilman (1926) | 7. Charles B. Taylor (1934) | |

and stabilizing influence again prevail in Our Field of Medicine if its activities are resumed at the close of this war.

THE SEVEN PRESIDENTS

Seven members of the Wapello County Medical Society became president of the Iowa State Medical Society and served as follows: S. B. Thrall, 1870; Jefferson Williamson, 1873; J. C. Hinsey, 1888; D. C. Brockman, 1905; John F. Herrick, 1917; S. A. Spilman, 1926; and Charles B. Taylor, 1934.

Seneca Brown Thrall was born in Utica, New York, on August 9, 1832, and died January 20, 1888, at his home in Ottumwa. He studied medicine under his father, Professor H. C. Thrall of Kenyon College, and at Starling Medical College

was commissioned Assistant Surgeon of the 13th Iowa V. I. and served with it in the 17th Army Corps until May, 1864, when he returned to Ottumwa and resumed civilian practice.

Dr. Thrall became a member of the Iowa State Medical Society in 1859 and for more than a quarter of a century was one of its ablest and most influential members. He was strongly opposed to medical politics, and was one of a small group that successfully defended the interests of the State Society against a struggle between the University Medical College at Iowa City and the College of Physicians and Surgeons of Keokuk, preventing either faction from gaining supremacy. He was also a member of the American Medical Association and served on many of its important committees. He was president of the Wapello

County Medical Society in 1871; secretary of the Iowa State Medical Society in 1865; president in 1870; again secretary in 1873, which office he held until 1877. He was a delegate to the AMA meeting in San Francisco in 1871, at which meeting he became an honorary member of the California State Medical Society.

General Grant was an ardent chess player. So was Dr. Thrall. They met, during the Civil War, in many closely contested games. Years afterward President Grant was completing his round-the-world-tour via Ottumwa. A large crowd gathered as the train arrived. Scheduled only for a short stop, the General appeared on the rear platform to make a brief speech. There was a commotion at one point near the fringe of the crowd, where a goggled and bewhiskered little man was struggling to make his way forward. The speech ended abruptly.

"Make way for Thrall," the General shouted; for Thrall it was. And when he got to the car, with an outstretched hand and a friendly grimace Grant exclaimed, "Hello, Thrall, you old son-of-a-gun! What are you doing here?"

Dr. and Mrs. Thrall had three children—Frank B., Nellie, and Homer N. Mrs. Mary Brooks Thrall died in 1889, but the women of the Bible class she taught at the First Methodist Church, at her request, organized the Ottumwa Hospital Association in 1892. The last member of the family, Frank B. Thrall, died at the Ottumwa Hospital in June, 1945, at the age of eighty-five.

Dr. S. B. Thrall died at the early age of fifty-six years, but the record of his brilliant achievements constitutes a full page in the annals of Iowa Medicine.

(To be continued)

ROMANCES OF CARDIOLOGY

DANIEL J. GLOMSET, M.D., Des Moines

(Continued from page 102)

varsan has been used millions of times. It is used today by every practitioner of medicine. By its proper use syphilis can be cured, can be stamped out entirely. There is no need for anyone's dying of syphilitic heart disease today. When physicians fully realize that medical education of the laity is their responsibility and intelligently attack that part of their duty as citizens, syphilis will become an obsolete disease.

Another, perhaps even greater, benefit came from the toils and tears of Paul Ehrlich. His work opened a new horizon in medical research. Ehrlich's crazy idea of magic bullets worked. Substances could be made that would kill disease-producing germs without doing serious damage to the host.

By the sweat and tears of other giants the "sulfa drugs" came into existence—and now penicillin. Only a few months ago, one of my colleagues reported the cure of a genuine case of subacute bacterial endocarditis by the use of penicillin—medicine marches on!

Cardiology has grown in wondrous ways since the publication of the *De Motu Cordis*; yet there remains much that is dark which must be illumined, and much that is weak which must be raised and supported before it can justly be said that man has conquered the diseases of the heart.

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PREVALENCE OF DISEASE

Disease	Jan. '45	Dec. '44	Jan. '44	Most Cases Reported From
Diphtheria	21	25	22	Woodbury, Dubuque
Scarlet Fever	389	220	389	Polk, Clinton, Linn
Typhoid Fever	0	0	3	For the State
Smallpox	0	0	2	For the State
Measles	127	75	521	Guthrie, Woodbury
Whooping Cough	32	25	144	Woodbury, Boone
Brucellosis	8	13	24	Linn
Chickenpox	354	216	261	Dubuque, Woodbury, Des Moines
German Measles ...	0	2	12	For the State
Influenza	0	0	7,462	For the State
Malaria	4	10	0	Page, Marshall
Meningococcus				
Meningitis	8	7	8	Polk
Mumps	380	127	83	Clayton, Dubuque, Johnson
Pneumonia	43	32	270	Black Hawk, Marshall, Marion
Poliomyelitis	0	6	0	For the State
Tuberculosis	53	49	64	For the State
Gonorrhea	266	171	150	For the State
Syphilis	143	122	223	For the State

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

LIPPINCOTT'S QUICK REFERENCE BOOK FOR MEDICINE AND SURGERY, a Clinical, Diagnostic, and Therapeutic Digest of General Medicine, Surgery, and the Specialties, Compiled Systematically from Modern Literature—By George E. Rehberger, M.D. Twelfth edition. J. B. Lippincott Company, Philadelphia, 1944. Price, \$15.00.

ATLAS OF THE BLOOD IN CHILDREN—By Kenneth D. Blackfan, M.D., Late Thomas Morgan Rotch Professor of Pediatrics, Harvard Medical School, Late Physician-in-Chief, Infants' and Children's Hospitals, Boston; Louis K. Diamond, M.D., Assistant Professor of Pediatrics, Harvard Medical School, Visiting Physician and Hematologist, Infants' and Children's Hospitals, Boston. With illustrations by C. Merrill Leister, M.D., Associate Pediatrician, St. Luke's Hospital, Bethlehem and Allentown General Hospital, Allentown, Pennsylvania. The Commonwealth Fund, New York, 1944. Price, \$12.00.

PRINCIPLES AND PRACTICE OF SURGERY—By W. Wayne Babcock, M.D., Emeritus Professor of Surgery, Temple University, Acting Consultant, Philadelphia General Hospital; with the collaboration of thirty-seven members of the faculty of Temple University. Lea & Febiger, Philadelphia, 1944. Price, \$12.00.

THE PATHOLOGY OF INTERNAL DISEASES—By William Boyd, M.D., Professor of Pathology and Bacteriology in the University of Toronto, Toronto; formerly Professor of Pathology in the University of Manitoba, Winnipeg, Canada. Fourth edition, thoroughly revised. Lea & Febiger, Philadelphia, 1944. Price, \$10.00.

MILITARY MEDICAL MANUALS, MANUAL OF CLINICAL MYCOLOGY—Prepared under the Auspices of the Division of Medical Sciences of the National Research Council. W. B. Saunders Company, Philadelphia, 1944. Price, \$3.50.

THE 1944 YEAR BOOK OF GENERAL SURGERY—Edited by Everts A. Graham, M.D., Professor of Surgery, Washington University School of Medicine; Surgeon-in-Chief of the Barnes Hospital and of the Children's Hospital, St. Louis. The Year Book Publishers, Inc., Chicago, 1944. Price, \$3.00.

PATIENTS HAVE FAMILIES—By Henry B. Richardson, M.D., Associate Professor of Clinical Medicine, Cornell University Medical College; Attending Physician, New York Hospital; Visiting Physician, Bellevue Hospital. The Commonwealth Fund, New York, 1945. Price, \$3.00.

OPERATIONS OF GENERAL SURGERY—By Thomas G. Orr, M.D., Professor of Surgery, University of Kansas School of Medicine, Kansas City, Kansas. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

SURGERY OF THE HAND—By Sterling Bunnell, M.D., honorary member of American Academy of Orthopedic Surgeons; member of American Association of Plastic Surgeons and of American Society of Plastic and Reconstructive Surgery. J. B. Lippincott Company, Philadelphia, 1944. Price, \$12.00.

THE ART OF RESUSCITATION—By Paluel J. Flagg, M.D., Chairman, Committee on Asphyxia, American Medical Association; President and Founder of the Society for the Prevention of Asphyxial Death, Inc. Reinhold Publishing Corporation, New York, 1944. Price, \$5.00.

BOOK REVIEWS

INTERNS HANDBOOK

By members of the Faculty of the College of Medicine, Syracuse University, under the direction of M. S. DOOLEY, M.D., Professor of Pharmacology, and MAYNARD E. HOLMES, M.D., Professor of Clinical Medicine. Co-Chairman, Publication Committee. Third edition. J. B. Lippincott Company, Philadelphia, 1944. Price, \$3.00.

This is the third edition of Interns Handbook, a guide, especially in emergencies, for the intern and the physician in general practice. The co-authors, with the assistance of the members of the faculty of the College of Medicine, Syracuse University, have succeeded in bringing the contents of this authoritative pocket size volume completely up to date.

The entire book is filled with essential facts and practical information regarding differential diagnosis, management, and treatment of the common diseases and their complications in man. It aims purely to serve as a quick and handy reference book, and it is amazing that so great a wealth of material can be compacted into such a small volume.

Among its features is the section on endocrine disturbances. This confused subject is clearly outlined and simplified in an understandable manner. Part Four presents pre- and postoperative surgical procedures, rudiments of anesthesia, management of gynecologic and obstetric emergencies, and the essential points of the various surgical specialties. Part Five is devoted to therapy. The technic of bone marrow infusion is described in detail. The discussion

on blood transfusion is excellent in that it gives a clear-cut presentation of the Rh factor, methods of typing and combating reactions. There is a comprehensive summary on the use of sulfonamides and penicillin.

The book will undoubtedly pay dividends as an ever-ready companion in the intern's pocket or in the physician's bag.

T. A.

MODERN CLINICAL SYPHILOLOGY

By John H. Stokes, M.D., Professor of Dermatology and Syphilology, School of Medicine and Graduate School of Medicine, University of Pennsylvania; HERMAN BEERMAN, M.D., Assistant Professor of Dermatology and Syphilology, School of Medicine and Graduate School of Medicine, University of Pennsylvania; and NORMAN R. INGRAHAM, JR., M.D., Assistant Professor of Dermatology and Syphilology, School of Medicine, University of Pennsylvania. Third edition, reset. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

This volume, as could be expected, contains all the available data concerning syphilis and its treatment known up to the time of printing. Since syphilis is a disease of many manifestations, it is to be expected that it would require much space and some duplication to cover all of them. The authors have made some items easier to find than in previous edi-

tions, but the book is still not designed for the busy general practitioner who desires a quick and concise answer to a specific question. The volume is an excellent textbook on syphilis and all the answers are included if one has the time to search for them and read a considerable amount of material of indirect bearing on the subject. While some improvement was made in organization of material, the reviewer was disappointed that more was not accomplished. It would have been nice to have seen some modernization of some of the illustrations which serve to "date" the book.

New material has been injected throughout the book, obsolete material has been eliminated, and new chapters on penicillin and newer treatment schedules have been added. So far as the material on penicillin is concerned, it serves as a good historical sketch on the subject, but the data on its therapeutic use and value was "ancient history" before the ink was dry. This is no reflection on the authors but rather an indication of how rapidly things medical are moving at the moment. The references to intensive treatment schedules seem, unfortunately, to be colored by the authors' opinion rather than by an evaluation of the factual data.

The subject matter on congenital syphilis is a distinct improvement over previous editions, a contribution that has been much needed. The chapter on syphilis in public health and military medicine is conspicuous for the authors' apparent lack of experience in both fields, and adds very little that is helpful on the subject.

All in all, it is unfortunate that the authors chose this particular time to come forth with a new edition. Events in the field of syphilology are happening with such rapidity that data would have to be changed before the printer's proofs could be obtained. Aside from this, which alone would discourage a printed document, this edition offers so little improvement over previous issues as to have been scarcely worth the effort, time, or expense.

R. M. S.

FEMALE ENDOCRINOLOGY

By Jacob Hoffman, M.D., Demonstrator in Gynecology, Jefferson Medical College; Pathologist in Gynecology, Jefferson Hospital; formerly Research Fellow in Endocrinology and Director of the Endocrine Clinic, Gynecological Department, Jefferson Hospital, Philadelphia, W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

Part I of this text takes up the physiology of the female endocrine system, and a chapter on the male is also included. The author presents in a conservative and clear-cut way the known facts of endocrinology. The twenty-two chapters of Part I can be recommended highly because all speculative and

controversial matter has been eliminated, making reading easy and definitely instructive.

Part II considers the clinical aspects of endocrinology, together with the endocrinopathies. These sixteen chapters are complete and make an excellent addition to any reference library because of the extensive bibliography at the end of each chapter.

Part III deals with all laboratory procedures in simplified and workable forms to carry out investigation in practical endocrinology.

While the book has seven hundred and eighty-eight pages with one hundred and eighty-one illustrations, it presents the subject in a most satisfactory manner and should be found in the library of both gynecologist and general practitioner.

L. E. K.

THE PRINCIPLES AND PRACTICE OF OBSTETRICS

By Joseph B. DeLee, M.D., formerly Professor of Obstetrics and Gynecology, Emeritus, University of Chicago, Consultant in Obstetrics, Chicago Lying-in Hospital and Dispensary, Consultant in Obstetrics, Chicago Maternity Center; and J. P. GREENHILL, M.D., Attending Obstetrician and Gynecologist, Michael Reese Hospital, Obstetrician and Gynecologist, Associate Staff, Chicago Lying-in Hospital, Attending Gynecologist, Cook County Hospital, Professor of Gynecology, Cook County Graduate School of Medicine. Eighth edition, entirely reset. W. B. Saunders Company, Philadelphia, 1943. Price, \$10.00.

Dr. DeLee's textbook has ranked high in medical schools for the past thirty years. This edition, which Dr. Greenhill helped to prepare, has many advantages over the old. English terms have been substituted for many of the old Latin terms, making it a more modern and comprehensible text; the newer classifications of many pathologic aspects of pregnancy are included; the arrangement of the text makes a clear, concise presentation of the material, rather than the state of confusion found in former editions. The treatise makes an ideal text for the student and is now so written that it is a handy reference for the practitioner.

The volume is excellent on operative obstetrics, being rather definite in indications for operative deliveries and also giving detailed description of procedures. The discussion of pathology during pregnancy, delivery, and postpartum was particularly impressive, since this is a section which is often slighted in textbooks on obstetrics.

The reviewer believes this text adequately meets the demands of the present-day student and practitioner.

N. W. I.

SOCIETY PROCEEDINGS

Audubon County

The Audubon County Medical Society met Tuesday evening, January 16, at the Victory Cafe in Audubon. Election of officers was held with the following results: Dr. Leroy E. Jensen of Audubon, president; Dr. William R. Koob of Brayton, vice president; Dr. William H. Halloran of Audubon, secretary-treasurer; Dr. Peter E. James of Elkhorn, delegate; and Dr. Peder Soe of Kimballton, alternate.

Boone-Story Society

A joint meeting of the Boone and Story County Medical Societies was held at the Holst Hotel in Boone Thursday, February 15, at 6:30 p. m. Lt. Col. Robert S. Shane, Medical Advisor of the Selective Service System of Iowa, was the guest of honor. Several Des Moines physicians were also present for the meeting.

Clayton County

At a recent meeting of the Clayton County Medical Society Dr. Placido R. V. Hommel of Elkader was elected president of the group. Other officers named were Dr. Edward C. Meggers of McGregor, vice president; Dr. Theodore W. Lichter of Edgewood, secretary-treasurer; and Dr. William J. McGrath of Elkader, delegate.

Des Moines County

A dinner meeting of the Des Moines County Medical Society was held in Burlington at Hotel Burlington, Tuesday, February 13, at 6:00 p. m. The scientific program consisted of an address by Andrew C. Woofter, M.D., Director of the Venereal Disease Division of the State Department of Health, on Venereal Disease Control and the Use of Penicillin in the Treatment of Venereal Disease, and also a discussion of Medical Insurance in the State of Iowa by Bernard J. Dierker, M.D., of Fort Madison.

Hardin County

The Hardin County Medical Society held its annual dinner meeting in Iowa Falls Tuesday evening, January 23, at which time officers were elected for 1945. Dr. David M. Nyquist of Eldora was named president; Dr. Ernest L. W. Brown of Iowa Falls, vice president; and Dr. William E. Marsh of Eldora, secretary.

Howard County

Following the death of Dr. George Kessel of Cresco, the Howard County Medical Society passed the following resolution of respect:

"Be It Resolved, that we deeply regret the passing, on January 29, 1945, of Dr. George Kessel, eminent artist and pioneer in medicine, surgery, philanthropy, and community spirit.

"Be It Also Resolved, that we feel deeply the loss to our Society and to the entire profession because of his ability, integrity, friendliness, and a spirit of helpfulness in all activities pertaining to organized medicine.

"Be It Further Resolved, that these resolutions become part of the permanent record of the Howard County Medical Society and that a copy be sent to his family, the Howard County *Times*, the Cresco *Plain Dealer*, and the State Medical JOURNAL."

Francis E. Giles, M.D., Secretary

Jackson County

The Jackson County Medical Society honored Dr. David N. Loose of Maquoketa at a dinner Friday evening, February 2, in observance of his ninetieth birthday on February 6. The meeting was held in the Legion Hall in Maquoketa and was attended by more than fifty physicians, dentists, and druggists of the county. At a brief business session Dr. Earl V. Andrew of Maquoketa was elected president of the Society for 1945 and Dr. John J. Tilton of Maquoketa, secretary. The program was devoted to reminiscing on early days in the medical profession. Dr. Loose told of coming from Michigan to Zwingle in 1877 and then to Maquoketa in 1882, where he opened a drug store in connection with his practice of medicine. Other speakers were Drs. John C. Dennison, Edward A. Hanske, and Milo W. Moulton, all of Bellevue, and A. L. Broxam and E. L. Hinckley of Maquoketa. The latter were employed in Dr. Loose's drug store in early days, and Dr. Dennison had worked in another drug store in Maquoketa.

Frederick J. Swift, M.D., Secretary

Johnson County

The Johnson County Medical Society held its regular monthly meeting in Iowa City at Hotel Jefferson Wednesday, February 7, at 6:00 p. m. The usual business meeting was followed by a scientific program consisting of a clinicopathologic conference presented by Dr. A. L. Sabs of the Department of Neurology, and Drs. W. S. Phetepplace, J. L. Carter, and H. P. Smith of the Department of Pathology.

Rubin H. Flocks, M.D., Secretary

Lee County

The Lee County Medical Society held its annual dinner meeting in Fort Madison at the Anthes Hotel Wednesday evening, January 31. Preceding the dinner, an address was presented by Dr. Donald Cook of Lake Zurich, Illinois. A business meeting and discussion of the Iowa Medical Service Plan followed the dinner.

Scott County

The monthly meeting of the Scott County Medical Society was held in Davenport at the Lend-A-Hand Club Tuesday, February 6, at 6:00 p. m. The guest speaker of the evening was Frank R. Peterson, M.D., Professor of Surgery at the State University of Iowa College of Medicine, who presented an illustrated lecture on Conservative and Operative Treatment of Varicose Veins.

Leo J. Miltner, M.D., Secretary

Wapello County

The March meetings of the Wapello County Medical Society are scheduled for March 6 and March 20 at St. Joseph Hospital in Ottumwa. At the Meeting on March 6 Vernon S. Downs, M.D., of Ottumwa will discuss Pulmonary Embolism. Clyde A. Henry, M.D., of Farson will present a paper on the History of Medicine in Wapello County at the meeting to be held March 20.

Washington County

The Washington County Medical Society held a dinner meeting Thursday evening, January 25, at the Nurses Home in Washington. Following dinner, Ruben Nomland, M.D., Professor of Dermatology and Syphilology at the State University of Iowa College of Medicine, presented an illustrated lecture on The Diagnosis and Treatment of Early Syphilis.

W. S. Kyle, M.D., Secretary

PERSONAL MENTION

Colonel John I. Marker of Davenport is now on terminal leave and will be discharged from the Army April 28, 1945. He has resumed his association with Dr. William H. Rendleman and is limiting his practice to nervous and mental diseases. Colonel Marker has been on active duty since March, 1941.

Captain Lawrence G. Schaeferle of Gladbrook, who has been on active duty in the Army since May, 1941, has received the Bronze Star medal "for heroic achievement in connection with military operation against the enemy in the vicinity of Saint-Laurent sur-Mer, Normandy, France, June 6, 1944." The citation says: "Although subjected to heavy enemy fire, Captain Schaeferle remained on an exposed beach administering first aid and in the evacuation of the seriously wounded. His heroic devotion to duty saved many lives."

Major Harry G. Marinos has been honorably retired from the Army and has resumed his practice of medicine in Mason City where he is associated with Dr. Leslie W. Swanson. Major Marinos was called into active service in February, 1941, and went overseas in March, 1942. He spent thirty months in the Pacific theater.

DEATH NOTICES

Barnes, Frederick Louis, of Oskaloosa, aged seventy, died January 28 following a long illness. He was graduated in 1899 from the University of Illinois College of Medicine, and at the time of his death was a life member of the Mahaska County and Iowa State Medical Societies.

Helgesen, Peter Andrew, of Lake Mills, aged seventy-six, died suddenly in Phoenix, Arizona, January 19, of a heart ailment. He was graduated in 1891 from the College of Physicians and Surgeons at Keokuk, and at the time of his death was a mem-

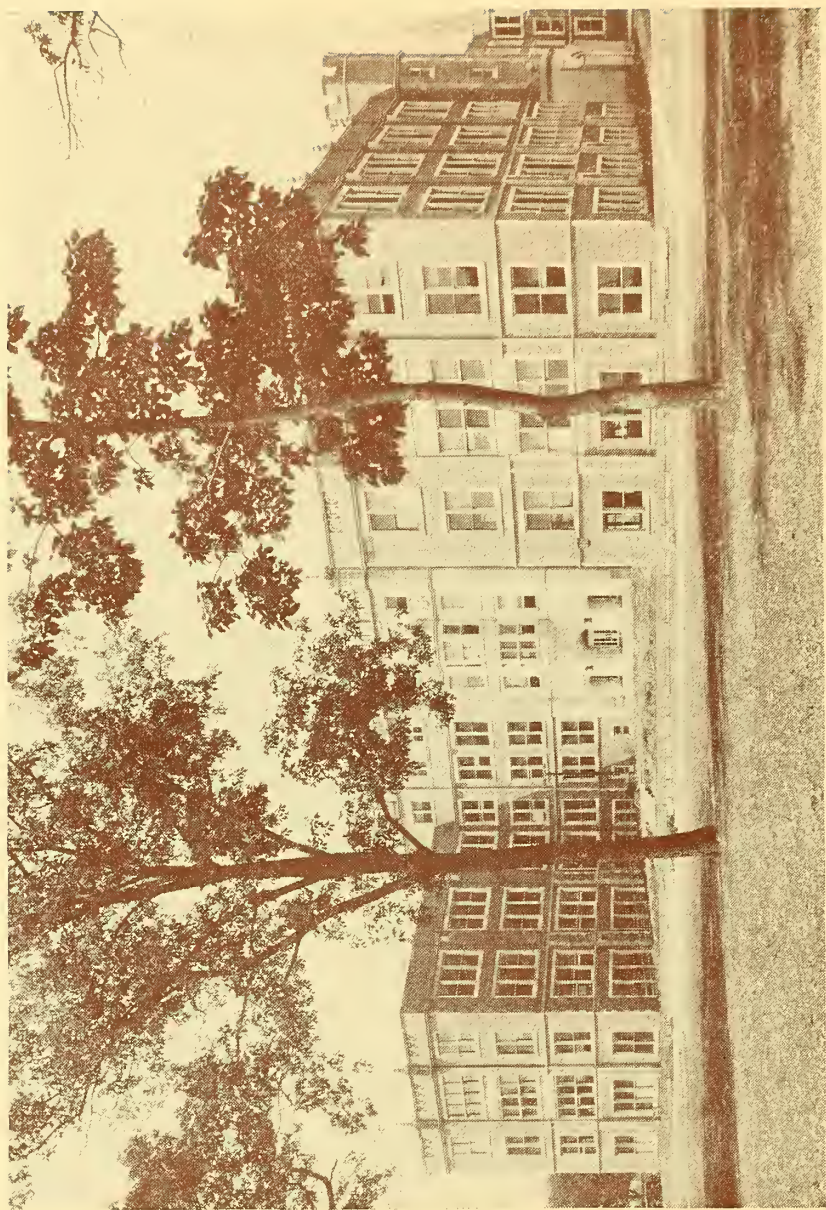
Kessel, George, of Cresco, aged eighty-eight, died January 29 following a heart attack. He was graduated in 1885 from Rush Medical College, and at the time of his death was a life member of the Howard County and Iowa State Medical Societies.

Rusk, Lester Daniel, of Sioux City, aged seventy-two, died January 22 after a short illness. He was graduated in 1907 from the Sioux City College of Medicine, and at the time of his death was a member of the Woodbury County and Iowa State Medical Societies.

Snitkay, Carl John, of Belle Plaine, aged seventy, died February 5 following an extended illness. He was graduated in 1901 from the State University of Iowa College of Homeopathic Medicine, and had long been a member of the Benton County and Iowa State Medical Societies.

Steinle, George Henry, of Burlington, aged fifty-one, died February 11 after an extended illness. He was graduated in 1917 from St. Louis University School of Medicine, and at the time of his death was a member of the Des Moines County and Iowa State Medical Societies.

Thatcher, Orville Donald, of Fort Dodge, aged thirty-one, has been reported dead by the War Department. Captain Thatcher, Army Flight Surgeon, had previously been reported missing in action following a mission over France June 22, 1944. He was graduated in 1937 from the State University of Iowa College of Medicine, and at the time of his death was a member of the Webster County and Iowa State Medical Societies.



*University Hospitals
State University of Iowa*

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Members of the Iowa State Medical Society:

Planning a postwar medical program this year assumes a special significance to the faculty of the College of Medicine. We are reminded of the debt that we owe to similar postwar planning more than three quarters of a century ago.

During the war between the states, as during all such destructive periods, medical standards suffered. In the years immediately following the catastrophe a few progressive physicians and other citizens of the state, dissatisfied with this quality of medical practice, demanded better training. With a vision well in advance of their time, they realized that if medical education in America were to achieve the place it merited, schools of medicine must, like those in Europe, be associated with great universities. Under the aggressive leadership of Dr. W. F. Peck of Davenport their efforts were rewarded in 1869 by the establishment of a Department of Medicine in the State University of Iowa. The first class was graduated in 1870.

We hope to be permitted to celebrate this seventy-fifth birthday with special clinics September 27 and 28. We trust that you will mark these dates and plan to join us in commemorating this event.

In presenting to you this third annual College of Medicine issue of our State Medical Journal I am taking the liberty of calling it our Diamond Jubilee Anniversary number.

I want to express my appreciation to the Editor for the opportunity to bring you this message, and to extend a greeting to each of you. The exigencies of the day will not permit us to meet at our annual session and renew the friendships of many years.

To our friends in the armed services, an especial greeting and our deepest regret that many of you cannot be with us in September.

Sincerely yours,

E. M. MacEwen, M.D., Dean

Editor's Note: It was with sincere regret that the Publication Committee deemed it necessary, because of limitations in paper stock, to hold over one manuscript submitted for publication in the Diamond Jubilee Anniversary issue. This article from the Department of Internal Medicine, entitled "Medical Management of Uncomplicated Peptic Ulcer" and prepared by W. D. Paul, M.D., and C. Rhomberg, M.D., will appear in the May issue of the Journal.

OBSERVATIONS ON BROMIDE INTOXICATION

C. H. MILLIKAN, M.D.

Bromine was discovered in 1826 by the French chemist, Balard.¹ In 1840, Graf² introduced bromides into therapy. Since that time the use of bromides has increased until they are among the most frequently prescribed of all medicines. Barbour, et al.,³ found that under the national health insurance plan in England one of every ten prescriptions contained bromides as the principal ingredient. A prescription ingredient survey in Lafayette, Indiana, by research workers of the Purdue University School of Pharmacy,⁴ gave sodium bromide fifth place in a list of 689 official, nonofficial, and proprietary items, ranked according to their frequency of use. This popularity is largely due to the quieting effect on the higher centers produced by the drug. Pavlov⁵ explained the beneficial effect of bromides thus: Bromides act on the inhibitory process; they strengthen inhibition by concentrating it at a definite point in the hemispheres; namely, the point at which the process originated. Bromide is excreted from the body by the kidneys, and since the observations of Laudenheimer⁶ in 1900 it has been known that bromide is retained in the body and accumulates until such a concentration is reached that the bromide intake and output are in a state of equilibrium. Because of this property of accumulation, it is possible for the blood serum bromide level to reach a height sufficient to cause a state of chronic intoxication. During the past fifteen years many reports have appeared in the literature describing the syndrome of bromide intoxication, bromism, and bromide psychosis. Many of these papers review a series of cases, in each instance alleged to be examples of chronic poisoning due to bromides. In one instance the authors report as many as 400 cases of chronic bromide intoxication at a single hospital. Compared with this amazing number of cases, intoxication is seldom seen at the State University of Iowa Hospitals. During the last seven years there have been 68,761 admissions to this hospital, and only 33 of that number were diagnosed as having any form of intoxication due to bromides. The incidence of bromide intoxication was .048 per cent. Recently, Liebman and Richman⁷ published a study of the blood serum

bromide level in 145 consecutive admissions to the Bliss Institute. Of that number only one patient had a blood serum bromide level higher than 150 milligrams per cent. The authors concluded that bromides did not play a great rôle in the production of symptoms of patients admitted to the Bliss Institute. In contrast to these figures, Sensenbach⁸ writes, "From January, 1943, to December, 1943, 20 cases of bromide poisoning were treated in the medical wards of the North Carolina Baptist Hospital, a relatively small service of 40 beds." The author does not include the total number of hospital admissions for that same period of time, so we know nothing about the incidence of intoxication at the North Carolina Baptist Hospital.

A review of the literature concerning bromide intoxication shows that there are many reasons for this difference of opinion about the frequency of the occurrence of poisoning due to bromides. Many authors seem to be confused about the criteria necessary for the diagnosis of bromide intoxication. As early as 1933, Levin⁹ reviewed these criteria. In general they are as follows:

1. "We must know whether the psychosis began before or after the intoxication began." (Whether the symptoms and signs were present before, or developed during the ingestion of bromide.)
2. "We must consider the duration of the psychosis after the discontinuance of the bromides. Usually, a bromide psychosis clears up in a short time—generally, from two to three weeks—after discontinuance. We must be careful not to confuse the mental state produced by bromides with the underlying psychosis." (Patients whose mental abnormality is due to the presence of an excess amount of bromide return to their prebromide-ingestion mental state when the drug is stopped.)
3. "The existence of a bromide intoxication, as shown by the Walter-Hauptmann test." (The Walter-Hauptmann test is the method used by Levin for determining the blood serum bromide level.)

To these three criteria should be added a fourth: that there should be no other drug intoxication or disease present which could mimic the syndrome of bromide intoxication.

The reports in the literature, describing many cases of alleged bromide intoxication, do not fulfill these criteria. Curran,¹⁰ for instance, wrote concerning 50 cases of intoxication due to bro-

From the Department of Neurology, University Hospitals.
Aided by a grant from the Institute for the Study of Analgesic and Sedative Drugs.

mides. He was unable to report what kind of drug was given, the amount, or the time over which it was administered. Many of his patients did not recover, as do those having bromide intoxication. Sixteen of them were ultimately sent out to other institutions, and 13 of these were subsequently diagnosed as having an entirely different mental disease. No blood bromide determinations were made on 20 of the patients. Ten patients of the series were taking another drug, or even more than one other drug, at the same time that they were supposed to be taking bromides. In 1938, Hanes and Yates¹¹ wrote an analysis of 400 cases of alleged chronic bromide intoxication. These authors gave no details about any individual cases. After reading their article we do not know how many of the patients described were taking bromides, how many of them had mental symptoms before they began to take any medication at all, how many of them became mentally clear after their hospital stay, how many of them had organic brain pathology, or how many of them had been taking more than one drug before their admission to the hospital. It is interesting to note that 177 of the 400 cases reported in this article had blood serum sodium bromide levels between 50 and 100 milligrams per cent. This means that the actual blood serum bromine content was between 38 and 77 milligrams per 100 cubic centimeters. Other authorities believe that such a value is far below the level needed to produce a bromide intoxication. Sensenbach,⁸ in his recent publication, does not fulfill these simple criteria in a single case of the 49 he writes of as being examples of "bromide intoxication." Craven,¹² Cuttino,¹³ Detweiler,¹⁴ Diethelm,¹⁵ Garrard,¹⁶ Gundry,¹⁷ Cheavens, et al.,¹⁸ Tod and Stalker,¹⁹ Wagner and Bunbury,²⁰ and Wohl, et al.,²¹ are but a few of the authors who have each reported a number of patients diagnosed as having bromide intoxication. Not one of these reports contains a statement to the effect that all of the cases recorded fulfill any set of criteria for diagnosis.

A diagnosis of bromide psychosis was made on a patient recently admitted to the Neurology Service of the State University of Iowa Hospitals. Had this patient been sent out of the hospital after only a few days of observation and treatment, the diagnosis would have remained the same. After an extended period of observation it became clear that there was a psychiatric disorder present, which was much more fundamental than a toxic psychosis. The details of the case are as follows:

CASE REPORT

C. D., a white woman fifty years of age, was admitted to the hospital accompanied by a graduate nurse. The patient was unable to answer questions. The history, obtained from outside sources, re-

vealed that the patient had been nervous all of her life. For the three months prior to admission to the hospital she had been taking a teaspoonful of a salty liquid medicine every three hours. This medicine had been prescribed for her by the local physician. A week before admission she began to act queerly. She was inattentive, and as time passed gradually became semistuporous. The day before admission she became restless, and appeared to be having delusions and hallucinations.

On physical examination the positive findings were: incontinent, dehydrated, noisy, and inaccessible. Routine examinations of the urine, blood, and spinal fluid were negative. The blood serum bromide level was 273 milligrams per cent by the Brodie-Friedman method. A diagnosis of bromide intoxication was made.

Physiologic salt solution was given daily by vein, in amounts sufficient to provide a daily intake of 15 grams of sodium chloride. Enough additional fluid was given to make the daily average intake 4,000 cubic centimeters. The patient had many delusions and hallucinations, and responded to these with yells, screams, and a generally resistive mood.

At the end of the first nine days of treatment the blood serum bromide level was 98 milligrams per cent. That day she cried, yelled, laughed, fought, and carried on conversations with imaginary individuals. On the eleventh hospital day the patient was able to take fluids and sodium chloride by mouth.

Twenty-one days after admission the blood serum bromide level was 4.5 milligrams per cent. That day the patient was restless, disoriented, hallucinated, and resistive. At times she appeared markedly depressed.

After six weeks in the hospital the patient continued to be depressed. She cried a great deal, mumbled, and was violent at times. Members of the Departments of Neurology and Psychiatry agreed on a diagnosis of involutional melancholia.

COMMENT

It should be noted that when this patient was admitted to the hospital a clinical diagnosis of bromide psychosis was made. This was substantiated by the finding of a high concentration of bromide in the blood serum. However, on further observation it became apparent that the abnormal findings had not been produced solely by an excessive drug intake; and, finally, it was concluded that the blood serum bromide level was responsible for only a small part of the patient's psychic upset. The latter was an involutional melancholia, the signs of which persisted after the blood serum bromide was entirely normal.

Some authors make the assumption that any patient having a blood bromide value of 75 milligrams per cent or more has the drug present in a pathologic amount. Cuttino,¹³ for instance, reports that out "of 1,947 routine analyses run, 189, or 9.6 per cent, were positive in pathological amount; i. e., 75 milligrams or more per 100 cubic centimeters of blood." This is, obviously, a misconception in view of the reports by Barbour,²² Novick,²³ Arieff,²⁴ Sippe and Bostock,²⁵ Minski and Gillen,²⁶ and Barbour, et al.,³ of having seen patients with blood serum bromide levels well over

200 milligrams per cent who showed no signs of intoxication.

Considering the inaccuracies described above, it is apparent that we know very little about the actual incidence of the occurrence of bromide intoxication in hospitals the country over, and, in relation to the total amount of bromide consumed in the United States each year, we know nothing about the incidence of intoxication produced by the drug.

Katzenelbogen, et al.,²⁷ Claiborne,²⁸ Preu, et al.,²⁹ and others agree that it is absolutely necessary to prove the presence of an increased amount of bromide in the blood before making a final diagnosis of bromide intoxication. There are numerous methods of making this determination. Most of the blood bromide values recorded in the literature have been made by using the Wuth method, or some modification of it. In this method gold chloride is added to a protein free filtrate of serum. If bromide is present beyond that usually found, there is a color change in the mixture from yellow to brown due to the formation of gold bromide. The degree of color change is proportionate to the concentration of gold bromide formed. As Wuth³⁰ himself has pointed out, his method is subject to considerable inherent error at both high and low serum bromide levels. It should also be noted that in making the determination the solution of gold bromide obtained is compared with standard tubes containing sodium bromide, previously treated with gold chloride, and the result is, therefore, expressed in terms of milligrams of sodium bromide present per 100 cubic centimeters of blood serum, and not in terms of pure bromine. Gray and Moore³¹ show that there are errors in the method in addition to the ones described by Wuth, and conclude that all of these "have been overlooked by those writers who attempt to correlate exactly the symptomatology with blood concentrations in bromide intoxication." The gold chloride method, because of its simplicity, is the one of choice for the general practitioner; it should be remembered, however, that it is not chemically accurate.

Many authors have attempted to determine the blood bromide concentration at which intoxication begins. Table I shows the varying report of the blood concentrations at which intoxication is said to begin. The second column gives the number of patients observed by each author. From the study of the given number of patients, each writer attempted to estimate the blood bromide concentration at which intoxication begins. It can be seen that there was considerable difference of opinion as to what constitutes a toxic blood bromide level. Most of the determinations were made with some

TABLE I
ESTIMATED BLOOD Na Br VALUES AT WHICH
INTOXICATION BEGINS

Authority	Blood Serum NaBr in Mg. Per 100 cc.	Number of Patients Observed	Method of Making the Chemical Determination
1. Claiborne (28).....	200	1	Wuth
2. Harding and Harding (32)	100	6	Wuth
3. Wagner and Bunbury (20)	200	10	Wuth comparator
4. Doane and Weiner (33) ..	125-150	4	Wuth comparator
5. Harris and Hauser (35) ..	125-150	12	Wuth comparator
6. Wuth (30).....	125-150	10	Wuth
7. Cross (36).....	150	5	Wuth
8. Tod (19).....	200	13	Tod
9. Preu, et al. (29).....	250	9	Wuth
10. Barbour (22).....	225-250	6	Hauptmann modification of Walter's method
11. Sippe and Bostock (25) ..	200	9	Hauptmann modification of Walter's method
12. Katzenelbogen (27).....	250	10	Walter's
13. Boshes (37).....	243.4*	9	Wuth
14. Jellinek, et al. (38).....	259**	80	Greenberg

*This is an average figure.

**The blood serum bromide figure given by the authors is 200 milligrams per cent. This has been changed to milligrams of sodium bromide per cent to correspond with the other values in the table.

modification of the gold bromide technic. As noted above, this test is not chemically accurate. With the exception of Jellinek, et al.,³⁸ the observed number of cases is too small in each instance to permit the formation of any sweeping conclusions about the blood bromide concentration at which intoxication is said to begin. The observations in the first nine instances listed were made upon patients admitted to the hospital with a clinical diagnosis of bromide intoxication. Therefore, the blood bromide levels noted for those patients were, of necessity, not the ones present when the symptoms and signs of bromide intoxication appeared. The conclusions of Barbour,²² Sippe and Bostock,²⁵ Preu, et al.,²⁹ Katzenelbogen,²⁷ and Boshes³⁷ were admittedly not final ones, because of the general difficulties of conducting an experimental study of this type. Recently Jellinek, et al.,³⁸ have published "An Experimental Study of Bromism." Quoting from that article, "It may thus be stated definitely that in these normal subjects (*they had 80 of them*) at the fairly high serum bromide levels between 120 and 200 milligrams per 100 cubic centimeters, no symptoms occurred which would have the slightest resemblance to psychotic manifestations nor were there any neurological signs of intoxication."

There is considerable difference of opinion between various authors as to the symptoms and

signs which are characteristic of bromide intoxication or psychosis. Preu³⁹ found "the early mental symptoms of intoxication are an exaggeration of the therapeutic sedative effect; sluggishness of thought, speech, and action. Impairment of consciousness with disorientation and memory defect follow, and in severe intoxication delirium may occur with delusions and vivid visual and auditory hallucinations." In contrast to this description of the syndrome is the multiplicity of signs and symptoms enumerated by Sensenbach⁸ as being characteristic of bromide intoxication. Mental confusion, stupor, delusions, headache, hallucinations, nervousness, weakness, gait disturbance, coated tongue, palpitation, slurred speech, irritability, depression, dizziness, memory defect, smothering spells, insomnia, nausea and vomiting, transitory blindness, transitory incontinence, and anorexia are listed in the author's table entitled "Signs and Symptoms of Bromide Intoxication." According to Hanes and Yates¹¹ dull morning headache, constipation, indigestion, fatigue, irritability, sleeplessness, difficulty in concentrating, poor memory, dizziness, unsteady gait, emotional instability, weakness, lethargy, slurring speech, irrelevant speech, delusions, disorientation, hallucinations, cyanosis, vacuous facies, dilated pupils, stupor, blurred vision, mental confusion, disordered dreams, vertigo, and loss of libido are produced by the presence of high concentrations of bromide in the body. Apparently, Sensenbach⁸ and Hanes and Yates¹¹ have tabulated *all* of the symptoms and signs of a group of patients allegedly suffering from bromide intoxication, and have then concluded that all of these complaints and physical findings were produced by the presence of an abnormal quantity of bromide in the patients' blood serum. The use of such a method to determine the symptoms and signs of bromide intoxication only leads to additional confusion concerning what items are actually a part of this syndrome. Over half of the signs and symptoms listed in the two articles cited are among those most often found in the clinical picture of psychoneurosis, a condition for which bromides are often prescribed. Before certain symptoms and signs are ascribed to the ingestion of any drug, it must be shown that they were not present before the drug was administered.

During the past fourteen months we have studied the action of sodium bromide by giving it to patients in varying quantities for long periods of time. Observations have been completed on 36 patients, all of whom took the medication voluntarily. A detailed account of this work is being published in a separate communication. It should be noted that the Brodie-Friedman⁴⁰ method was used for all of the blood serum bromide determi-

nations made. The results obtained by this method are accurate at all levels, and are expressed in milligrams of bromine per 100 cubic centimeters of blood serum. This is in contrast to the various modifications of the gold bromide method which produce a result read as milligrams of sodium bromide per 100 cubic centimeters of blood serum. This is an important point, as the "Wuth" figure corresponding to a given blood serum bromine level by the Brodie-Friedman method would be approximately 30 per cent higher.

We have found that the clinical picture of bromide intoxication is a simple one. The patient first complains of an increased desire for sleep, and then begins to take an extra nap whenever he can. The need for sleep increases until the patient begins to fall asleep while reading, or has trouble maintaining his attention on uninteresting subjects. As the blood serum bromide concentration gradually increases, slurring of the speech appears, followed in order by the development of a mild staggering gait. These physical signs gradually progress as the intoxication increases, until the patient is confined to bed by the severity of the ataxia, and the fact that the clouding of consciousness has reached the state of stupor. In this stage the patient may be disoriented for time because of lack of attention. The subject is frequently incontinent, and may have to be fed—again because of the severity of the clouding of consciousness. All of these findings were produced by the exaggerated sedative effect of the high blood serum bromide concentration, and were not present before the drug was given to the subjects.

The clinical syndrome called bromide psychosis is also essentially a simple one. (The term "bromide psychosis" is used advisedly. This condition is a toxic psychosis or delirium and, as such, differs from a more fundamental type of psychosis such as schizophrenia or involutional melancholia. A better term would be a "toxic delirium due to bromides," but for the sake of brevity we shall continue to refer to the condition as a "bromide psychosis.") Patients having bromide psychosis were seen to exhibit the physical findings of bromide intoxication, plus hallucinations, delusions, and disorientation. With the latter three findings came the excitement, negativism, and general disorderly conduct which they commonly produce. Dull morning headache (or headache of any kind), constipation, indigestion, sleeplessness, palpitation, visual disturbances, irritability, brown furry coating of the tongue, smothering spells, and cyanosis have not developed in any of the patients receiving bromides. Nausea and vomiting were frequently observed in this study, but were not a part of the syndromes of bromide intoxication or

bromide psychosis. They often occurred the first day the drug was given, came on shortly after the ingestion of the drug, and were, apparently, produced by the irritating effect of the sodium bromide on the gastric mucosa.

In the entire series of 36 patients studied thus far, the lowest blood serum bromide level at which the syndrome of bromide intoxication appeared was 195 milligrams per cent.

TREATMENT

The principal treatment of bromide intoxication is to discontinue the drug. The importance of maintaining and controlling the sodium chloride metabolism has been emphasized by many authors. Gray and Moore³¹ point out that "Bromides have a much higher renal threshold than do chlorides, and consequently tend to replace chlorides in the tissues, causing the latter to be excreted in the urine." Wagner and Bunbury²⁰ observed increased severity of the intoxication when bromides were stopped suddenly, and sodium chloride was given in large amounts. They attempted to explain this phenomenon as a sudden release of bromides from the tissues by the introduction of chlorides, so that for a short period of time the amount of bromide circulating in the blood was increased rather than decreased. We have not been able to confirm this observation. The chloride intake should be maintained at a minimum of 12 to 15 grams of sodium chloride per day as long as intoxication persists. It may be necessary to give the sodium chloride intravenously, or under the skin, in the form of physiologic salt solution. Fifteen hundred to two thousand cubic centimeters of this solution daily will supply the needed amount of sodium chloride. A moderately increased fluid intake aids in the excretion of the bromide by the kidneys, and tends to shorten the course of the intoxication. Three thousand to four thousand cubic centimeters of fluid daily is an adequate amount. The limits may be adjusted, depending upon the size of the patient. If the patient cannot take this amount of fluid by mouth, it must be given by some other method. A careful record of the daily fluid intake and output should be kept in the nurses' notes.

Patients having a severe bromide psychosis frequently are excited and unruly, because of the vivid hallucinations and delusions from which they suffer. Ordinarily, we do not like to restrain such patients, since the excitement already present is frequently aggravated by such measures. The continuous presence of an attendant or graduate nurse is a better solution. At times some other medication may be needed to quiet the patient so that fluids may be administered. We have found that 20 cubic centimeters of paraldehyde in peanut oil,

injected rectally, is often effective. In more severe cases the intravenous administration of .225 gram to .450 gram (depending upon the size and reaction of the patient) of a solution of sodium amytal is justified. Either amount of the drug can be dissolved in ten cubic centimeters of sterile water. Craven¹² observed a case in which paraldehyde, sodium amytal, and chloral hydrate increased the delirium, rather than quieting it. In our experience sodium amytal has been an effective preparation under these circumstances. Toenhart³⁴ recommends gastric lavage, since it is known that bromides occur in high concentration in the gastric secretion. The danger of aspiration of material into the bronchial tree by a stuporous patient seems to outweigh the advantages of such a procedure.

During the period of severe intoxication, care must be given to the bladder, bowels, and skin. The patient should be turned in bed frequently. If there is itching due to the presence of a bromide eruption, calomine lotion with 1 per cent phenol may be applied to the involved areas.

Should bromide intoxication and cardiac failure occur simultaneously in the same patient, ammonium chloride may be used in place of sodium chloride, thus supplying the need for chloride without introducing any additional sodium into the system.

The prognosis of patients having bromide intoxication is good for the ultimate return of the patient to his pre-bromide ingestion mental state. The time usually necessary for this improvement is seven to twenty-one days. If the patient continues to show abnormal symptoms and signs after twenty-one days of bromide elimination therapy, it is probable that the abnormalities are due to something other than the presence of an unusual amount of bromide. A careful review of the patient's history, in such instances, will generally reveal that there was some definite organic or psychic pathology present before the administration of bromides.

SUMMARY

The incidence of bromide intoxication at the State University of Iowa Hospitals in the last seven years was .048 per cent. This figure is lower than most of the few others published in the literature.

The criteria for the diagnosis of bromide intoxication and psychosis are reviewed. Many of the cases of alleged bromide intoxication reported in the literature do not fulfill these criteria. Considering the inaccuracies so prevalent in the diagnosis of this syndrome, it is evident that we know very little about the incidence of bromide intoxication.

There is difference of opinion about the blood serum bromide level at which intoxication begins. The lowest blood serum bromide level at which we

have observed experimentally produced bromide intoxication is 195 milligrams per cent.

The symptoms and signs which can be ascribed to the toxic action of sodium bromide are enumerated.

The principal points in the treatment of bromide intoxication are reviewed.

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THE VALUE OF TESTING FOR PENICILLIN RESISTANCE BEFORE ADMINISTRATION IN CASES OF CHRONIC OSTEOMYELITIS

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ALBERT P. MCKEE, M.D.

For the past six or seven months, it has been our practice in the Orthopedic Department in cases of chronic osteomyelitis to determine before the administration of penicillin the possible resistance of the patients' infective organisms to penicillin therapy. This has been carried out because of information, which reached us from various Army and Navy hospitals, of the fact that certain infections, which commonly respond to penicillin therapy, had shown no improvement. It has been shown that the organisms of these cases were resistant to penicillin, and that in such circumstances a very valuable and scarce drug was being wasted. It is known that small doses of penicillin, when administered into cultures of staphylococci and streptococci over a period of time, will develop in these organisms a resistance to the drug, and that the organisms will live in spite of the presence of the drug.

Again we saw cases of chronic osteomyelitis in which penicillin was administered and there were no visible signs of clinical improvement in the patient even though previous penicillin therapy had not been instituted. In others, probably an inadequate amount was administered and a resistance developed in this manner. Still another possibility is that adequate surgical drainage did not accompany the penicillin therapy. It is known, too, that various organisms become resistant to sulfa drugs in a similar way. Because of this and the information from various military hospitals, we decided to test our patients for possible penicillin resistance. This was carried out under the supervision of the Bacteriology Department and the technic was as follows:

The test to be described here is a slight modification of the one introduced by Fleming,¹ the discoverer of penicillin. The materials used are simple, few in number, and likely to be available in

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the average bacteriology laboratory. Blood agar plates, a tool for removing disks of agar from the plates, penicillin-resistant bacteria, penicillin-susceptible bacteria, and the organisms to be tested fulfill the important requirements for performing the test.

The medium used in this laboratory is 5 per cent sheep's blood infusion agar. The depth of the agar in the plate should average about five millimeters for best results. Some instrument is necessary to cut disks from the agar. In this laboratory we use a sterile cork borer fifteen millimeters in diameter. If one uses a punch too small in diameter, the well left upon removing the agar disk will not hold sufficient penicillin to conduct the test satisfactorily. Too large a well requires an unnecessarily large amount of penicillin.

To control the penicillin-sensitivity test properly, a resistant strain and a susceptible strain of bacteria are required in addition to the organism to be tested. We use a resistant and a susceptible strain of *Staphylococcus aureus*. These organisms are easily maintained on nutrient agar in the refrigerator when transferred every two or three

lin, but such is necessary. Certain bacteria, naturally resistant to penicillin, can destroy the drug very rapidly, hence asepsis is paramount in handling it.

With the above materials available the sensitivity test is easy to perform. Two disks are cut from each blood agar plate with the sterile cork borer in the areas indicated by figure 1. One plate is inoculated with the penicillin-resistant organism streaking from the outer edge of the agar in to the edge of one of the holes. This procedure is repeated on the other side of the same hole. Now inoculations are made on either side of the second hole of the same plate. Note the direction of the inoculation as demonstrated in figure 1. The whole procedure is repeated on the other two plates using a penicillin-susceptible strain on one and the test organism on the other.

After the plates are inoculated, ten units of penicillin contained in 0.1 milliliter are pipetted into one hole of each plate and one unit contained in 0.1 milliliter into the second hole of each plate. The plates are incubated lid-side up at the appropriate temperature and oxygen tension required by the organisms under investigation. In the case of most staphylococci this would be aerobically at 37° centigrade. The results are read the following day.

The control plates are read first to be sure the penicillin is appropriately inhibitory in action. The penicillin-resistant organisms should grow right up to the edge of the holes containing penicillin. The penicillin-susceptible bacteria should show a zone of inhibition depending upon its relative susceptibility. Our strains of staphylococci have been constant in this respect. If the penicillin has deteriorated on standing, the penicillin-susceptible strain will also grow right up to the edge of the hole containing the penicillin and a fresh sample of the drug must be used to run the test.

If the controls are acceptable, then the plate inoculated with the test organism may be read. The use of two concentrations of penicillin permits some spread in estimating the sensitivity of the test organism. Our own experience has been very clear-cut in that the test organisms either have been obviously susceptible to both dilutions or resistant to both. The line of demarcation, that is, where the organism ceases to grow, is almost always sharp. See figure 1 for illustration of typical results of the test when a penicillin-susceptible test organism is encountered.

The sensitivity test described above, when properly controlled and used with good judgment, is quite reliable. We have used the same test for organisms other than staphylococci, such as beta-hemolytic streptococci, pneumococci, and alpha-

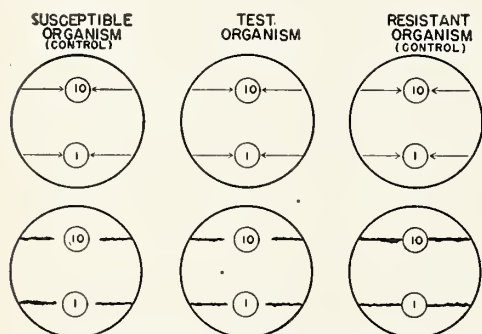


FIG. 1. SHOWING METHOD OF INOCULATION AND GROWTH OF ORGANISMS IN THE PRESENCE OF PENICILLIN. NUMBERS IN SMALL CIRCLES INDICATE THE UNITS OF PENICILLIN ADDED PER CUP.

weeks. Occasionally we have run the test using the exudate containing the organism under investigation directly. Usually it is more satisfactory to isolate it in pure culture first and then proceed with the examination.

Very small quantities of penicillin are necessary in this test. We obtain our penicillin from the clinician desiring to learn the penicillin-sensitivity status of the organism with which he is about to cope. The dilutions are made in sterile 0.9 per cent sodium chloride so that 0.1 milliliter of one dilution will contain ten units and 0.1 milliliter of a second dilution will contain one unit. Our stock penicillin is stored in the refrigerator at 4° centigrade. If strict asepsis is followed in handling penicillin, it can be kept for at least six to eight weeks. It may seem paradoxical to use strict asepsis in handling a potent antibiotic like penicil-

hemolytic streptococci, with equally satisfactory results.

We have used this method of testing for resistance only in cases of chronic osteomyelitis, since in a good share of the cases of acute osteomyelitis, penicillin therapy is started before it is possible to obtain a culture of the type of organism.

Up to the present time, nine patients have been tested for resistance to penicillin therapy. None of these patients was given the drug, since we believed we would be wasting a valuable and precious drug under the present circumstances of war. However, one patient went elsewhere and obtained what normally would be considered an ample course of penicillin therapy with no clinical improvement. This one case has not proved our point, but it certainly has helped to substantiate our belief and others, that it is of no clinical value to give patients penicillin under these circumstances. We believe that with the scarcity of this spectacular drug it should be given only to those patients with chronic osteomyelitis whose organisms are susceptible to the drug.

The purpose of this paper is to show that penicillin should not be given in all cases of chronic osteomyelitis, and that we are probably wasting penicillin in cases which show resistance on laboratory tests, particularly when in these times the drug is so important.

At the present time, then, the drug should be used in those cases of chronic osteomyelitis in which the organisms are resistant and in the acute cases of osteomyelitis, and in conjunction with adequate surgical drainage. With the same token, we may not in turn disillusion some of these patients who have had a chronic osteomyelitis for years and who expect the wonder drug, penicillin, to give them the cure they have for so long been seeking.

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MENINGITIS AND OTHER INFECTIONS CAUSED BY HEMOPHILUS INFLUENZAE (PFEIFFER'S BACILLUS)

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CLINICAL ASPECTS OF INFECTIONS CAUSED BY HEMOPHILUS INFLUENZAE

Since February, 1938, seventeen patients with influenzal meningitis have been treated in the State University of Iowa Hospital. In May, 1943, the mode of treatment was revised. Since February,

1943, eleven patients have been treated with sulfonamide drugs. There were eight deaths, two recoveries, and one case which resulted in hydrocephalus and idiocy. From May, 1944, to February, 1945, six similar patients have been treated with a combination of sulfonamides and type-specific rabbit antiserum. The first patient died; the other five were discharged as cured without residual damage.

Each patient served to illustrate important aspects of the problem of infection in childhood caused by *Hemophilus influenzae* (Pfeiffer's bacillus). An attempt will be made in this report to review the essential features of these infections and outline the present therapeutic and bacteriologic routine.

In interepidemic periods meningitis due to influenzae, pneumococci, and meningococci occurs in infants and young children with approximately equal frequency.¹ This fact has been stressed by Alexander and is borne out by the experience in this hospital.

Penicillin is ineffective in infections caused by *H. influenzae*. One patient treated with sulfadiazine plus intrathecal and intramuscular penicillin in another hospital progressed to untreatable chronicity and died in this hospital despite rabbit antiserum therapy.

The occurrence or suspicion of meningitis, therefore, calls for the immediate bacteriologic identification of the causative agent. The recognition of meningitis in infants under one year of age is particularly difficult. The peculiar pathogenicity of the *H. influenzae* bacillus makes it doubly so. The onset of meningococcal meningitis is apt to be fulminating and the alarming picture presented immediately calls to mind the possibility of meningitis. Petechiae tend to confirm the suspicion. On the other hand, pneumococcal and particularly *Hemophilus influenzae* meningitis is likely to be insidious in onset. Frequently infants show only fever or irritability, food refusal or drowsiness to indicate that all is not well. A baby with an open fontanelle may have widespread meningeal infection without a stiff neck or bulging fontanelle to warn the clinician. Too frequently in our series the infant had a fever of undetermined origin for several days before a diagnosis was made. The unpardonable negligence of failing to examine the spinal fluid after a so-called "febrile convulsion" has led to the postponement of diagnosis and treatment by days or weeks in some cases.

Although the spinal cord extends one lumbar space lower than in adults, the technic of the lumbar puncture in infants and children is not different than in adults. Usually the procedure is much easier. In the presence of a spinal fluid block,

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epidural hemorrhage, or marked dehydration, the puncture may not yield fluid. Such an eventuality calls for cisternal or ventricular puncture in order to obtain a sample of fluid for quantitative sugar determination, cell count, smear, and culture. Frequently septicemia coexists. Hence, in every case of suspected meningitis a blood culture should be obtained. The infective agent may be identified from the blood culture alone or before the spinal fluid cultures grow out. Nasopharyngeal cultures are helpful.

The type b. *Hemophilus influenzae* organism has a predilection for certain sites and organs in the human infant. Alexander has stressed the fact that the three common eventualities of infection with this organism in infancy are meningitis, obstructive epiglottitis and pneumonia with empyema.² Suppurative otitis media and mastoiditis may accompany, precede, or follow the other complexes. Two patients in our series illustrate these aspects vividly.

P. S., 8½ months of age, was admitted to another hospital with pneumonia and empyema. Two weeks after the onset a rib resection was performed. Nineteen days after the onset bilateral mastoidectomies were done. Five days later *Hemophilus influenzae* was cultured from the spinal fluid. Despite intrathecal sulfonamides the baby died on the fortieth day of the disease.

B. W., 2½ years of age, was well except for a mild cold until 5:30 a. m. October 14, 1944, when he became restless and seemed feverish. By 8:00 a. m. he seemed to be having difficulty in breathing and he made a crowing inspiratory noise. He rapidly became cyanotic. When his mother tried to comfort and aid him, he suddenly "choked up" and died. An autopsy was performed elsewhere but the neck structures were not examined. Nevertheless, the rapid progress of the symptoms, the croupy respirations and the sudden death when stimulated all suggest a clear-cut clinical entity. The history is virtually diagnostic of *Hemophilus influenzae*, type b, epiglottitis or so-called "flu croup." The only thing that could have saved this child was immediate tracheotomy. Forty-eight hours later a sibling 18 months of age was admitted to our hospital because of convulsions. The diagnosis of influenzal meningitis was suspected from the history and this was confirmed by the bacteriologists. The child was successfully treated in accordance with the following method:

When a child suspected of having meningitis is admitted, a lumbar puncture is done immediately and the blood and nasopharynx are cultured. The spinal fluid is collected in three separate tubes, one for bacteriologic examination, one for determination of dextrose and protein content, and one for

study of the cytology. Should purulent fluid be obtained, the child immediately is given a subcutaneous injection of sodium sulfadiazine in a 5 per cent solution in the dosage of 0.75 grain per pound of body weight. While awaiting the laboratory data an intravenous infusion of 5 per cent dextrose is begun. If the child is dehydrated an amount of normal saline calculated to re-establish hydration is given intravenously or subcutaneously. It is expected that in four to five hours about 20 cubic centimeters of dextrose solution per pound of body weight will have run in. If the type b *Hemophilus influenzae* organism is identified, type-specific rabbit antiserum is obtained. The patient is tested for hypersensitivity to rabbit serum by injecting 0.1 cubic centimeter of a 1:100 dilution of the therapeutic serum intracutaneously and placing 1 drop of the diluted serum in the conjunctival sac and waiting forty-five minutes. If no signs of sensitivity are elicited, it is considered safe to give the serum. When the glucose infusion is complete, the dosage of serum calculated according to Alexander's schedule is dissolved in 100 cubic centimeters of saline and added to the reservoir and allowed to run in slowly. The glucose infusion is necessary for it tends to wash out circulating specific soluble carbohydrate which has been excreted by the organism. Removal of the carbohydrate frees more serum so that it may unite with more such carbohydrate in the organism's capsules and aid in producing bacteriostasis.² Two hours following completion of the therapeutic serum infusion, a sample of the patient's blood is withdrawn and centrifuged. The patient's serum so obtained is diluted with 9 parts of saline and is tested for its ability to cause capsular swelling of the patient's organism. If such "quellung" occurs, the dose is considered to have been sufficient. If the capsular swelling does not occur, another ampule of serum is given and the test is repeated. Usually, if adequate serum is on hand, the dosage provided by Alexander's schedule² is all that is necessary. Because of the scarcity of this expensive agent it may be necessary to give more than the initial ideal dose in divided amounts as it becomes available. In one such case only one-fourth of the necessary serum was obtainable immediately. It seemed logical to modify the routine and give the first dose of serum intrathecally, hoping to effect a higher concentration about the meninges.

The dose of antiserum is based on the fact that the severity of the infection tends to be reflected in the reduction of the level of dextrose in the spinal fluid. The dose varies inversely with the dextrose content. It is very important, therefore, that sufficient fluid be obtained to make this determination. The fluid must be obtained before intravenous

solutions are given or the value will not be reliable. Analysis for dextrose must be made immediately because glycolysis proceeds rapidly in the presence of pus and bacteria. The schedule of dosage as given by Alexander is included in every package of the antiserum, but more serum must be given if "quellung" with the diluted serum does not occur. In other infections with the organism this criterion alone must be used as a measure of adequate therapy.

A blood level of sulfadiazine ranging between 15 and 20 milligrams per 100 cubic centimeters is maintained for one week after sterile spinal fluid cultures are obtained. If in forty-eight hours the response is not favorable and the dosage has been satisfactory, 1 ampule of serum is given intrathecally.

Other sites of possible infection are watched closely. Smouldering mastoiditis is not uncommon. If its presence is suspected, a simple mastoid antrotomy should be done so that the pus will drain and not "feed" the meninges.

Minor toxic states such as rashes or crystalluria should not be given undue weight. If a typical toxic erythema occurs, the sulfonamide should be changed. Simple miliaria must not be so misinterpreted. Extra fluid may be given by gavage, hypodermoclysis, or infusion.

An optimistic attitude toward the treatment of meningitis of fairly long standing should prevail. Alexander recently has cited recovery in babies suffering for six or seven weeks with spasticity, strabismus, nystagmus and other signs of severe damage.³ Infants and children have remarkable powers of recovery, and this fact should not be forgotten in their treatment.

BACTERIOLOGIC AND SEROLOGIC ASPECTS OF INFECTIONS CAUSED BY HEMOPHILUS INFLUENZAE

Hemophilus influenzae was first isolated by Pfeiffer in 1889. Until recently this bacterium was considered by many investigators to be the cause of clinical influenza and was so named. During past epidemics of clinical influenza it was not uncommonly isolated from patients who had a bacterial pneumonia superimposed upon what is now believed to have been a virus infection. More recent investigations leave no room for doubt that clinical influenza, as we now see it, is caused by a filtrable virus.⁴ Nevertheless the bacterium retains its misleading species name.

That *H. influenzae* may have been misnamed and proved not to be the cause of clinical influenza makes it no less a formidable pathogen. In interepidemic periods it has been reported as causing as many cases of meningitis as the meningo-

coccus.¹ A review of our own records shows our experiences to be in accord with these reports.

Pittman's investigations⁵ in 1931 laid the basis for specific serum therapy of influenzal meningitis. This investigator noted the differences between *Hemophilus* organisms cultured from normal throats and those obtained from pathologic sources. She demonstrated a capsule on the pathogenic strains and found such a capsule to be lacking among the nonpathogenic strains. She extended her work to demonstrate that the pathogenic strains of *H. influenzae* could be divided into six types on the basis of the antigenic differences among their capsules. The types were designated a, b, c, d, e, and f. Since this time, additional types have been discovered.⁶ The number of types encountered to date are not at all as numerous as the types found among the pneumococci. Fortunately, from the bacteriologist's point of view, the vast majority of human infections are caused by type b.

Careful studies of the antigenic structure of capsule-forming strains of *H. influenzae* and the response of experimental infections caused by this organism to specific serum therapy⁷ led to some worthwhile deductions. Alexander, et al.,² noted the very close similarity between work done in the past on the pneumococcus and the results they obtained in their studies of *H. influenzae*. These experimenters were quick to capitalize on these similarities.

The results of this fundamental variety of experimental endeavor permitted the following conclusions: (1) Pathogenic strains of *H. influenzae* are encapsulated with a polysaccharide substance. (2) It is this polysaccharide capsule that determines the type specificity of the strain. (3) Intelligent serum therapy must take cognizance of the antigenic type of the organism. (4) The severity of the infection is closely paralleled by the amount of type-specific capsular polysaccharides found in the blood stream and body fluids during an infection. (5) A slight excess to the quantity of type-specific antibody required to tie up all of the capsular polysaccharides in a given case is assumed to be necessary for successful serum therapy. (6) A combination of sulfonamide and specific serum therapy gives better therapeutic results in *H. influenzae* infections than either one alone in both experimental and human infections. (7) The earlier the treatment is started, the better the patient's chance of survival. (8) *H. influenzae* meningitis is not a characteristic clinical entity and therefore must be diagnosed bacteriologically. (9) Other *H. influenzae* infections are finally diagnosed bacteriologically.

In the light of what has gone before, then, the

bacteriologist's obligations become apparent: (1) Establish an early and accurate diagnosis of the type of *H. influenzae* causing the infection. (2) Determine the adequacy of specific serum therapy. Both of these services can be rendered in any laboratory competent to type pneumococci.

The bacteriologist's duties begin with the receipt of a satisfactory specimen from the cases of suspected *H. influenzae* infection. Such specimens may include spinal fluid, blood cultures, mucus from the upper respiratory tract, and pus from various pyogenic processes. Examination of smears, stained by Gram's method, from spinal fluid, mucus, or pus may well show the presence of gram-negative, small, coccobacillary forms and some filaments. The presence of this somewhat characteristic morphology permits one to proceed with the "Neufeld-quellung" typing technic. A loopful of the exudate is added to each loopful of the various typing sera. Enough methylene blue is added to color the organisms. After a few minutes have elapsed, the preparation may be examined with the microscope, using the high power objective and the oil immersion objective. Homologous antigen-antibody mixtures result in a swelling of the bacterial capsule, and microscopic agglutination is usually also present. One should not consider the results of the typing negative until after the preparation has stood thirty minutes and still no capsular swelling has occurred.

It is obvious that the technic for typing *H. influenzae* is identical with that used in typing *Diplococcus pneumoniae* and equally simple. It is only fair to mention that the capsular swelling occurring when the test is applied to *H. influenzae* is not as sharp and distinct as results obtained with most pneumococci. However, by using heterologous controls and known positives one needs very little practice to be able to type the *Hemophilus* organisms quickly and accurately.

The specific polysaccharide substance may be typed directly from the spinal fluid by the use of the precipitin test. After centrifuging the spinal fluid the supernatant portion is layered over the type-specific antisera. The appearance of a precipitate at the interface denotes a homologous type. Such a procedure requires more antibody than the "Neufeld-quellung" procedure and is therefore more expensive. In addition considerable time must have elapsed in the course of the disease before sufficient polysaccharide is present in the spinal fluid to permit typing by this method.

Occasionally a spinal fluid will be drawn so early in the course of a meningitis that the organisms will be so few as to make direct typing difficult or impossible. Another example in which typing directly may be necessarily postponed is encoun-

tered when attempting to type *H. influenzae* from pus or mucus, when many other organisms are present. In either case culturing the organism on artificial culture media is necessary as a preliminary step. Spinal fluid may be plated directly on chocolate agar and the organisms typed from the colonies. Usually this means a delay of about twelve hours. Not uncommonly spinal taps that are clear and contain very few organisms when first drawn may be cloudy and contain numerous bacteria when repeated in three or four hours. Direct typing may be performed on the second specimen and a diagnosis be made before the culture plates have grown out.

When a specimen of exudate contains a mixed flora and one is unable to type the *Hemophilus* organisms directly, there is no alternative other than culturing the specimen on artificial culture media. Most organisms found in conjunction with *H. influenzae* are more prolific in their growth on culture media than *H. influenzae* and tend to overgrow it. In addition to this some species of cocci actually produce inhibitory substances that prevent the growth of *H. influenzae* on the same plate. The number of successful isolations of the organism in question may be considerably increased by the use of special technics.

Taking advantage of the fact that *H. influenzae* is not inhibited in its growth by penicillin and that most cocci are so inhibited, Fleming⁸ was able to culture *H. influenzae* from numerous throats whereas without this special technic he often failed.

Two or three drops of penicillin solution (about 10 units per milliliter) are spread about the surface of a chocolate agar plate with a glass spreader. The specimen to be cultured is then inoculated on the plate using a rather heavy inoculum. Usually one may type the organisms from the colonies in twelve hours. One must remember that such a procedure will also cause any rough strains of *H. influenzae* to be cultured and that these will not type since they possess no typeable capsule. The rough strains are considered to be weakly, if at all, pathogenic. However, experimental investigation leads one to believe that partially rough strains may under adequate provocation become fully encapsulated and smooth.⁹

Blood cultures require special consideration. Statistical evidence leaves little doubt that most cases of meningitis caused by *H. influenzae* are accompanied by or preceded by a bacteremia. Respiratory tract infections caused by *H. influenzae* such as laryngotracheitis, laryngotracheobronchitis, and epiglottitis, are almost without exception accompanied by blood stream invasion. After about twenty-four hours of incubation, a

portion of the blood culture should be centrifuged for examination. The sediment may be smeared and stained by Gram's stain. If suspicious organisms are found, typing should be carried out. If the morphologic and serologic examinations of the sediment yield uncertain or negative results, the sediment should be cultured on chocolate agar.

Special isolation practices are not required for examination of blood and spinal fluids for they practically always yield pure cultures. Since *H. influenzae* grows very poorly, if at all, on nutrient agar slants, particularly when freshly isolated, it is a good practice to inoculate one of these slants to aid in differentiating organisms which may be morphologically and culturally confused with it.

It is well to remember that the three organisms most commonly causing acute meningitis, *Neisseria intracellularis* (meningococcus), *Hemophilus influenzae* (influenza-bacillus) and *Diplococcus pneumoniae* (pneumococcus), are morphologically dissimilar. *Neisseria intracellularis* is a Gram-negative diplococcus, *Hemophilus influenzae* a Gram-negative coccobacillus accompanied by a varying number of long filaments, and *Diplococcus pneumoniae* a Gram-positive diplococcus. In addition to these morphologic differences, each of these organisms may be studied directly by serologic methods since specific diagnostic rabbit antisera may be obtained against each. Not uncommonly one may examine a very cloudy spinal fluid in which apparently no bacteria are to be found. As a result of the recorded experiences of others and our own experiences we have come to assume that if cultivable bacteria be present, almost without exception meningococci will be cultured from such a specimen.

To expect the serologic diagnosis of *H. influenzae* to be without flaw and to anticipate that such a test would always be infallible would be to expect too much. In those cases in which the "Neufeld-quellung" typing gives equivocal results or fails entirely to type the organism, one should fall back on a cultural diagnosis of the organism. In addition to the above situation it is a good procedure to check one's serologic diagnosis culturally no matter how clear-cut the typing may be. Two approaches to the same problem with compatible results reached by both leaves a greater feeling of certainty than relying on any one test.

On chocolate agar after twenty-four hours, *H. influenzae* produces a round, medium convex, semi-opaque, somewhat grayish colony of about one millimeter in diameter. A Gram's stain of the bacteria from such a colony shows very small, Gram-negative, coccobacillary forms predominating the picture. Varying numbers of slender filamentous forms are also encountered. Many more

filaments are encountered among the rough forms of the organism but a sufficient number occur in the smooth colonies to be readily found.

The fact that *H. influenzae* requires both the "X" factor (an organic iron porphyrine compound) and the "V" factor, which appears to be a di- or tri-phosphopyridine nucleotide (co-enzyme I or II) for growth, aids considerably in the cultural diagnosis of this organism.

If nutrient agar, ascitic fluid agar, and blood agar be inoculated with *H. influenzae*, this organism grows only on the blood agar. Blood contains both the "X" and the "V" factor. *H. para-influenzae*, an uncommon cause of meningitis, will grow on both the blood and ascitic fluid agar since it requires only the "V" factor. *H. pertussis*, which is included in the *Hemophilus* genus will grow on all three slants since it requires neither the "X" nor the "V" factor. The use of the media mentioned illustrates how certain members of the genus *Hemophilus* may be differentiated on the basis of their growth factor requirements.

The effect of an increased amount of "V" factor on the growth of *H. influenzae* may be illustrated by use of the "satellite phenomenon." This is accomplished by spreading a suspension of the organism over the surface of a blood agar plate with a glass spreader. Following this manipulation a culture of *Staphylococcus aureus* known to synthesize the "V" factor is inoculated on one or two small areas of the plate. After twenty-four hours of incubation the colonies of *H. influenzae* in close proximity to the *Staphylococcus* colonies are very much larger than those located some distance away. This test may be performed using the spinal fluid as a source of the suspension of organisms under investigation.

While the morphologic and cultural examination may afford one reasonable assurance of a correct diagnosis, it is a good practice to check such an organism serologically, that is, with the agglutination or "Neufeld-quellung" tests using type-specific rabbit antiserum.

After the bacteriologic diagnosis has been established and specific antiserum administered, the clinician may be interested to learn whether or not he has given an adequate amount of antibody. Alexander² has determined adequate antibody administration, somewhat arbitrarily, on the basis of the serologic response of the patient's serum following the administration of the type-specific antiserum. The test she describes is not difficult to perform. It consists of mixing a 1:10 dilution of the patient's serum with a suspension of smooth, encapsulated *H. influenzae* and observing microscopically for an apparent capsular swelling. Enough methylene blue should be added to the

serum-bacterial mixture to color the bacterial cells. When capsular swelling occurs with a 1:10 dilution of the patient's serum, antibody administration is considered adequate. When sufficient antibody is administered intravenously, the patient's serum may cause the positive "Neufeld-quellung" reaction to occur within an hour.

The intracutaneous test also has been suggested as a test for adequate serum therapy. Fundamentally this test is the same as the Francis¹⁰ test devised for recognizing adequate serum therapy for pneumococcal lobar pneumonia. The test consists of injecting 0.1 milliliter of a solution of type-specific polysaccharides intracutaneously in the flexor surface of the forearm. An allergic manifestation becomes apparent at the site of the inoculation usually within fifteen to thirty minutes if adequate antibody has been administered.

Some clinicians¹¹ have treated *H. influenzae* meningitis by intramuscular injections of antibody using a single injection of 75 milligrams of antibody nitrogen. They found the "Neufeld-quellung" test, using the patient's serum, to be positive in anywhere from one to twelve hours. Apparently the route of administration affects the rate of absorption and consequently the time required to reach an adequate antibody level. These same investigators obtained positive serum tests from six to sixteen days following intramuscular administration of the antibody. These results lead one to believe that an adequate dose of antibody administered all at once certainly may accomplish two desirable results; namely, to obtain an adequate level of antibody in the patient and to have a demonstrable quantity of antibody remain for a sufficient period of time. It is not for the bacteriologist to settle the questions concerning methods and amounts of antibody administration. One cannot help but raise the question, however, as to whether it would not be a good practice to give sufficient antibody from the outset that would be sure to be adequate. There is very little, if any, sound evidence to support the belief that an excessive amount of antibody, per se, will be deleterious to the patient's welfare.

Attempts have been made serologically to estimate what would be an adequate dose of antibody prior to administration.² As yet the originators of the method have been reluctant to place too much faith in the test.

SUMMARY

1. Since February, 1938, 17 patients suffering from meningitis caused by *H. influenzae* have been treated. In the past nine months the mortality has been markedly reduced by a combination of sulfonamides and type-specific rabbit antiserum.

2. *H. influenzae* is a frequent cause of menin-

gitis in infancy. Accurate bacteriologic diagnosis is imperative, since a highly specialized form of treatment must be used to assure good results.

3. *H. influenzae* causes other severe infections in childhood and similar special treatment is necessary.

4. *H. influenzae* may be typed quickly and accurately by the "Neufeld-quellung" procedure.

5. Such typing may be accomplished by any laboratory competent to type pneumococci.

6. Adequacy of serum therapy may be checked serologically by using the patient's serum and a suspension of encapsulated *H. influenzae*.

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MALARIA AND ITS DIAGNOSIS

IRVING H. BORTS, M.D.

Malaria, frequently referred to as "The Scourge of the Tropics," is without question the most prevalent and important disease in the world today.

In a study reported by the Health Organization of the League of Nations in 1932, there were 17,750,760 cases of malaria treated in sixty-five countries in the year this particular study was conducted. India, which has a population of 350 million, has 100 million cases annually. In areas such as the Malay States, as high as 60 per cent of all diseases treated in hospitals and dispensaries were due to malaria.

The mosquitoes of the anopheline genus are responsible for the transfer of malaria from man to man. Certain species of this genus are distributed throughout the United States, *A. quadrimaculatus* and *A. punctipennis* being most common. A survey of mosquitoes in Iowa conducted by J. A. Rowe,¹ Entomologist, Iowa State College, during

the period from 1936 to 1940, revealed four species capable of carrying and transmitting malaria. *Anopheles punctipennis* was found in 68 of 96 counties studied. *A. quadrimaculatus* was found in 24 counties, *A. walkeri* in 8, and *A. maculipennis* in 7. Thus, with an abundance of mosquitoes in Iowa capable of transmitting malaria, the introduction of unrecognized human cases and carriers may lead to epidemics of the disease. The promptness with which these cases are recognized and treated will determine to a considerable extent the amount of malaria which will be encountered in our state.

Malaria was highly endemic in the entire upper Mississippi River and its tributaries in the pioneer days. Petersen² in his recordings of pioneer events in Iowa, leaves little question as to the great suffering caused by malaria in those early days.

Four species of malarial parasites (plasmodia) are transferred to man under natural conditions by the bite of infected mosquitoes of the anopheline genus. They are in order of frequency, *P. vivax* (tertian or benign tertian), *P. falciparum* (malignant tertian, subtertian, estivo-autumnal), *P. malariae* (quartan) and *P. ovale*. The latter is primarily limited to Africa and has never been observed in the United States. *P. vivax* is noted for its high relapse rate in infected persons; four to six relapses are not uncommon. On the other hand, *P. falciparum* is noted for its pernicious attacks which may quickly prove fatal if it is not promptly diagnosed and the patient wisely treated. Among malarial infections, *P. falciparum* is known as the "killer" because of the high mortality rate.

If one should look at the world map prepared by the United States Army in 1942³ showing the distribution of malaria, the disease predominates in tropical and subtropical climates. The most highly endemic areas are noted in Equatorial Africa; all of southern Asia, southern Europe, particularly Italy and the Balkans; the Malay Archipelago; many of the Southwest Pacific Islands; Equatorial and Central America. Areas of low to moderate endemicity, are the southern part of the United States and the entire southern part of the Soviet Union. It is interesting to note that Italy and the Balkan States in general, which occupy a similar latitude to Iowa, comprise a highly endemic malarious area, while malaria in Iowa is very sporadic in occurrence. The question arises as to why the entire southern portion of the Soviet Union is a moderate to low endemic area while corresponding areas in the northern United States and southern Canada are relatively free of malaria.

An interesting observation has been made in the Southwest Pacific regarding the incidence of ma-

laria in colored troops. The negro of our southern states is relatively immune to vivax malaria in his native habitat, yet in the Southwest Pacific he is just as susceptible as the white man. Are we dealing with strains of malaria which vary in their degree of virulence and require different climatic conditions? Considerable data have already been gathered to support this view.

Many of the members of our armed forces are returning home from highly malarious areas, either on furlough or are being discharged for medical reasons. Some of these persons after discontinuing their routine suppressive atabrine therapy, subsequently develop symptoms of malaria. Many of these cases present symptoms of an atypical nature so that influenza, brucellosis, virus pneumonia, and many other conditions are suspected rather than malaria. A number of such cases have come to my attention which were later verified as malaria by the demonstrations of malarial parasites in thick and thin blood films. Unfortunately many of our textbooks used by physicians in the temperate zones present the classical symptoms and findings in malaria, ignoring for the most part or barely mentioning the atypical cases. So protean are the signs and symptoms of malaria that it is being classed along with syphilis and brucellosis as one of the great masqueraders. So variable are these manifestations that every tropical physician considers malaria as of first import in every differential diagnosis. Similarly, every member of the armed forces and workers returning to the United States from malarious areas, who consults his physician because of illness, must be considered potentially a victim of malaria until proved otherwise. If we adopt such a slogan, malaria will be promptly recognized and treated so that it will continue to be of little import in present non-endemic areas. If we fail to do this, many cases of malaria will be overlooked and outbreaks of malaria in epidemic proportion may be encountered. It is important that we recognize in this group the chronic, latent, and asymptomatic cases during the seasons when malaria carrying mosquitoes are active. It is also important that we recognize the early cases of falciparum malaria on account of its atypical pernicious character which has a high mortality rate if it is not promptly diagnosed and treated.

Following the prodromal period during which vague muscular pains, malaise, loss of appetite, headache and lassitude are noted the classical findings in malaria are chills, fever, and sweat. The primary chill or chilly sensation may resemble that of any acute infection but usually becomes progressively more severe with each succeeding chill, so that the patient eventually literally shakes. In typical infections due to *P. vivax*, the paroxysms

of chills, fever, and sweat occur at periodic intervals of 48 hours, *P. malariae* 72 hours, and *P. falciparum* every 24 to 36 hours. Following the chill in the former two, the fever begins to rise and may reach 104 to 106 degrees. With the onset of sweating the fever begins to drop, the patient becomes relaxed and falls off to sleep. A period of well-being follows for 24 to 48 hours depending on the type of malaria. Following this, the patient again begins to experience the prodromal manifestations and then the chill, fever, and sweating. When it occurs this periodicity is typical of malaria, but in early cases and particularly in *falciparum* malaria it may be so irregular that malaria may not be suspected. Associated with the foregoing symptoms may be gastric discomfort, urinary frequency, nausea, and vomiting.

In *falciparum* malaria the frank chill is replaced by a prolonged and intensified hot stage, a lack of profuse sweating and the presence of a continuous or remittent fever for several days instead of the classical intermittent fever curve. This irregularity in paroxysms is explained by a series of paroxysms coming on before the preceding one has terminated. Such an irregularity is frequently referred to as the "dumb chills" which are associated with severe apathy or prostration. These paroxysms come on following the rupture of the red blood cells containing the mature segmented parasites. It is in this type of malaria that enormous numbers of young malarial parasites may be found in the peripheral blood for a few hours after the paroxysm and then suddenly disappear until after the next paroxysm. Thus it is important that blood smears be taken daily or twice a day on each of three successive days. This dramatic disappearance of parasitized red blood cells from the peripheral circulation is due to the adhesiveness of the red blood cells which form minute clumps, plugs, or thrombi. These clumps may plug capillaries in any organ of the body or concentrate in one organ, leading to bizarre symptoms referable to that organ. On such a basis several forms of malignant tertian malaria are described:

1. The cerebral form may manifest itself in a number of ways: (a) the hyperpyrexial form which simulates heat stroke; (b) the comatose or delirious form; (c) the epileptiform or cerebellar form.

2. The bilious remittent form, associated with gastric and biliary manifestations.

3. The algid form, accompanied by severe dysentery and frequently referred to as malarial dysentery. Fever is usually lacking.

4. The cardiac form, resulting from dilatation of the right heart.

5. The pneumonic form, with symptoms of bronchopneumonia.

As previously indicated, malaria relapses due to *P. vivax* are frequent. It is felt that these relapses are due to failure on the part of the body defenses to resist the multiplication of the parasites as is the case in latent malaria. In latent malaria there may be no obvious clinical manifestations and the parasites are rarely found in the blood even by the highly efficient thick film technique. Such infections may accidentally come to light following blood transfusions, injury, cold exposure, lowered body resistance, and during other infectious processes. It is apparent that in non-endemic areas like Iowa we must become malaria conscious or suffer the consequences.

We must also take cognizance of the fact that during malarial infections, the serologic tests for syphilis may become positive and revert to negative following antimalarial therapy. Kolmer, the author of the Kolmer complement-fixation test in 1929 stated that malaria in his experience had no effect upon the Wassermann reaction. Later, Cumming and his associate in the United States Public Health Service sent Kolmer a number of blood specimens from nonsyphilitic persons who were suffering from malaria, 19.4 per cent were reported as Wassermann positive. Nonspecific reactions have been reported with the Kahn test by various workers ranging from 4.9 per cent to 80 per cent. In a small series of nonsyphilitic seronegative individuals inoculated with malaria by Rein and Elsberg,⁴ 44.4 per cent developed false positive serologic reactions between the seventh and fourteenth day following the first malarial paroxysm.

Burney, Mays and Iskrant⁵ report that eleven nonsyphilitic patients with dementia praecox developed positive serologic tests for syphilis by one or more methods (Kahn, Kline and Kolmer) following malaria inoculation. It is apparent from these reports that the nonspecific reactions are higher in *vivax* than in *falciparum* malaria and that the percentage of positives is higher fifteen to twenty-one days after the last previous paroxysm. Such nonspecific reactions are noted in other so-called tropical diseases, such as yaws, leprosy, relapsing fever, trypanosomiasis, pinta, and many other febrile diseases. We must keep in mind that a positive serologic test does not always indicate the presence of syphilis.

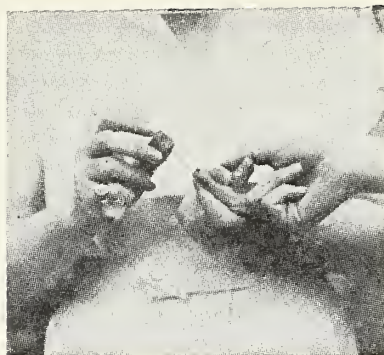
A definite diagnosis of malaria must be based on microscopic demonstration of the parasites in the blood films. Many an erroneous diagnosis has been made based solely on a temporary response to antimalarial drugs. It must be remembered that a single smear, and in some instances several

smears, is inadequate to rule out malaria. This is particularly true in early, chronic, and latent malaria when the parasitic density in the blood is low. In falciparum malaria, segmenting forms (pre-sporulating) are rarely found in the peripheral blood except in overwhelming infections and near death. The reason for this is that the red blood cells containing young parasites become sticky, resulting in their adhering to the capillary walls. As previously recommended where falciparum malaria is likely, blood smears should be taken twice a day on three successive days. It has been conclusively shown that it is necessary to have ten parasitized cells per cubic millimeter of blood before the parasites can be detected uniformly in blood smears. The ingestion of antimalarial drugs by persons with early, chronic, or latent malaria may interfere with the detection of parasites for several days.

Blood films, both thick and thin, should be taken with the greatest of care. Miss Aimee Wilcox of the United States Public Health Service, who has popularized the thick blood film technic, in the preface of her manual⁶ indicates the importance of the proper collection of blood specimens, "Well made films are the basic step toward reliable diagnosis, and the best efforts by a qualified technician may be frustrated by the poor condition of the material with which he has to work." This manual, which is obtainable from the Superintendent of Documents, Washington, D. C., at a cost of forty-five cents, should be in the hands of every laboratorian interested in malaria diagnosis. The thick film properly prepared is a boon to the laboratorian. On numerous occasions, I have failed to find malarial parasites in thin films in from thirty to sixty minutes' examination, whereas numerous parasites could be found in thick films within three to five minutes' time. It has been stated by various workers that the thick film is twenty-five to fifty times more efficient than the thin film. The only disadvantages of the thick film, if such can be considered disadvantages, are that special staining technic (Giesma) is required and the microscopist must be familiar with the identification of the parasites in such preparations. In the staining of thick films the red blood cells are dehemoglobinized so that one sees in such preparations the malarial parasites and white blood cells primarily. After one becomes familiar with malaria parasite identification in thick films, the thin film is rarely ever examined.

PROCEDURE FOR PREPARING AND MAILING BLOOD FILMS FOR MALARIA EXAMINATION

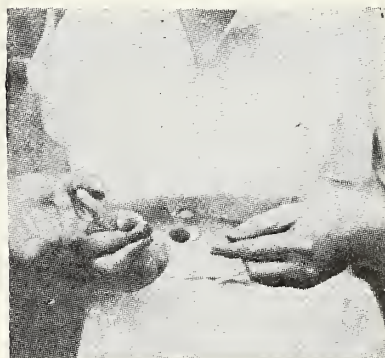
When to Make Films—Blood should be taken a few hours before the chill, not during or just after the chill (Exception: when infections due to *P. falciparum* are suspected, make films on each



Obtaining the blood.



Starting the blood film.



The right amount of blood obtained.



Slide lying flat and protected from flies.

of three successive days, for reasons stated above the parasites may not be found on the first examination).

How to Make Films—A thin blood film slide as for differential blood count and a thick film slide taken prior to the chill and *before* quinine medication are desirable.



Thick films.



Thick and thin films.

the antrum are much normal. There is free air over the lateral sinus at the junction of the emissary. In these areas the sinus is very soft. The sinus and a considerable area of the cerebellum posterior to it are unopposed. The lateral sinus is of good color and the emissary bleeds freely. The blood

News print visible through wet thick film. Wet thick film does not photograph as densely as dried films of similar thickness.

Thick films are especially advantageous in early mild, chronic, or latent infections, or, where therapy has been instituted. Malarial parasites may be demonstrated in a thick film when thin films are negative, since a larger amount of blood can be examined in a concentrated area. Thick films require a special staining procedure and must be examined by experienced workers.

1. METICULOUSLY CLEAN, dry slides, free from grease, dust, acid, or alkali are essential.

2. Cleanse finger tip with alcohol or ether and allow to dry.

3. Puncture finger deeply so that blood will well up in a large drop with slight pressure.

4. Touch slide to blood, with a rotary motion and without touching the finger, spread blood over an area the size of a dime. Make two such films on the same slide, one being thinner than the other.

5. Allow films to air dry away from dust or flies. To dry slide, place face up in a covered clean slide box, drawer, or Petri plate.

Caution: Smears should be thick enough so that ordinary newsprint can just be read when viewed through the wet blood film. Smears when too thick crack and peel off and when too thin lose the effect of concentration. Films will not adhere to greasy slides. Chemicals interfere with the staining reaction. Debris may appear as artifacts sim-

ulating malarial parasites. Experienced workers may make a thick and a thin film on the same slide. Care must be taken to see that these are widely separated.

How to Ship—After slides are thoroughly dry, place in mailer face up. Fill out data card and mail at once. Slides more than several days old stain poorly and the red blood cells become resistant to dehemoglobinization.

SUMMARY AND CONCLUSIONS

1. Malaria transmitting mosquitoes are widely distributed in Iowa.

2. Every member of the armed forces or laborers returning from malarious areas who suffer from illness must be considered potentially malarious until proved otherwise.

3. The diagnosis of malaria is based on the microscopic findings of malarial parasites in the blood of the patient.

4. Thick films are 25 to 50 per cent more efficient than the thin films in the detection of malarial parasites. More information can be obtained in three to five minutes' examination of a thick film than can be gained in thirty to sixty minutes in thin films.

5. False positive serologic tests for syphilis are obtained with the blood of nonsyphilitic patients following the acute paroxysms and during chronic or latent malaria.

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A CLINICAL PERSPECTIVE ON THE RH FACTOR

ELMER L. DEGOWIN, M.D.

The four classic blood groups to which all human beings may be assigned were first clearly defined independently by Janský and Moss. Landsteiner showed that these groups occur because of the presence of either, both, or neither of two agglutinogens, A and B, in the cells and the agglutinins, anti-A and anti-B, in the plasma. The combinations result in the four blood groups, A, B, AB, and O. The agglutinins are naturally occurring antibodies which appear in the blood plasma soon after birth and increase in potency

From the Department of Internal Medicine.

during the first twenty years of life. So far as is known, their presence is not a response to antigens. Proper recognition of the importance of the properties of the groups in the ABO system has made possible the modern practice of blood transfusion.

It was soon realized that human red cells contain many other agglutinogens which can be identified by special tests. By injecting human red cells from various sources into rabbits, Landsteiner and Levine were able to produce antisera which divide the members of the human race into three blood groups which are inherited independently of the ABO system. These groups were designated M, N, and MN. They have not proved important in clinical medicine because there are no naturally occurring agglutinins which act upon them and the M and N agglutinogens apparently are poor antigens when injected into persons of other groups in this system. Therefore the practical importance has been restricted to the further differentiation of the identity of human bloods in forensic medicine.

Full application of the knowledge of these two systems of blood groups has not proved adequate, however, in explaining rare transfusion reactions due to incompatibility. In 1939 Levine and Stetson¹ studied the case of a woman who hemolyzed the transfused blood of her husband after she had been delivered of a macerated fetus. It was found that her serum contained an agglutinin which clumped the cells of about 80 per cent of persons belonging to group O. The agglutinable factor could not be identified with any known agglutino-gen. The hypothesis was advanced that she had developed an antibody against the tissues of the fetus. The next year, Landsteiner and Wiener² developed an antiserum by injecting the red cells from the rhesus monkey into rabbits. The rabbit serum was found to agglutinate the red cells from approximately 85 per cent of human beings, regardless of the presence of agglutinogens A, B, M, N, or P. They called this agglutinable substance the *Rh factor* and persons whose cells contained it were designated as *Rh positive*; those without it as *Rh negative*. Wiener and Peters³ reported cases of hemolytic transfusion reactions in Rh negative recipients who had developed anti-Rh agglutinins by receiving multiple transfusions of Rh positive blood. Levine and his coworkers⁴ soon presented evidence to prove that the rare obstetric disease of erythroblastosis fetalis was the result of development of isoimmunity to the Rh factor.

Since the original contributions in this field, the subject has received intensive study. It has been shown that the possession of the Rh factor is inherited as a mendelian dominant character and is

present in approximately 85 per cent of the white persons in certain parts of the United States. It is also apparent that the proportion of Rh positive to Rh negative persons varies in different races. Less than 1 per cent of Japanese studied, for example, are Rh negative.

Persons whose blood is Rh negative are vulnerable in one or two respects. If they are males, they may, after receiving a series of transfusions of Rh positive blood, develop agglutinins against the Rh factor which results in hemolysis of further transfused Rh positive blood. If they are females, in addition to the possibility of becoming immunized by repeated transfusions, isoimmunization by pregnancy may occur. The mathematical probability is great that an Rh negative female will marry an Rh positive husband and have children whose blood is also Rh positive. A woman so situated may bear several children whose blood contains the Rh factor. With repeated similar experiences, her blood plasma may develop anti-Rh agglutinins. These antibodies diffuse through the placenta and act against the Rh positive blood cells of the fetus, producing a hemolytic type of anemia in the latter. This disease of the fetus has long been known as erythroblastosis fetalis. This may result in fetal death and abortion, or in the birth of a deeply jaundiced, anemic infant. If the child is viable, its condition usually demands transfusions of blood for the treatment of the anemia. Although its blood is Rh positive, the tissues are saturated with anti-Rh agglutinins from the mother and transfused Rh positive blood cells are quickly destroyed and are therefore ineffective. Transfusions of Rh negative blood, on the other hand, are well tolerated. Should the mother require blood transfusions during the course of the labor and puerperium, special consideration must be given. Her blood contains antibodies against the Rh factor so that transfusion of Rh positive blood, as from the husband, results in a hemolytic reaction.

In the extensive literature which has accumulated on the phenomena of isoimmunity, it has been difficult to obtain a clinical perspective on the importance of the Rh factor. Most of the papers have dealt with the study of a few selected cases, leaving the clinician uncertain as to the frequency with which isoimmunity occurs. The incidence of erythroblastosis fetalis has been known for many years and this condition has been recognized as a relatively rare disease. Although the combination of Rh negative mother and Rh positive child occurs in approximately one in ten pregnancies, only one in 400 pregnancies results in erythroblastosis fetalis. It was also known in a general way that many Rh negative persons could receive multiple

transfusions without becoming sensitized to the Rh factor.

Some perspective on the incidence of transfusion reactions due to isoimmunity to the Rh factor can be obtained from a study made in the Blood Transfusion Service of the University Hospitals. During a period of 18 months 5,386 consecutive blood transfusions were given to 2,116 recipients. Transfusions were administered without regard for Rh type of the donor or recipient and without reference to the obstetric histories of the female recipients. When transfusion reactions occurred, the bloods concerned were typed for the Rh factor and tested for the presence of anti-Rh agglutinins.

The total number of reactions of all types was 186, an incidence of 3.4 per cent. Of these, only six were found to be due to sensitivity to the Rh factor. Four were from isoimmunity, apparently produced by four or more blood transfusions, and two were caused by pregnancies. In a large general transfusion service, then, only 0.1 per cent of the blood transfusions involving donors and recipients, unselected for the Rh factor, were attended by reactions attributable to isoimmunity to the Rh agglutinin. Only one of the six reactions resulted in a fatality. The details of this study are reported elsewhere.⁵

In this series, none of the recipients developed isoimmunity to the Rh factor with less than four blood transfusions. From the data available, it was estimated that of approximately 60 recipients who were Rh negative only four (6.6 per cent) were immunized by four or more transfusions.

It is then evident that isoimmunity, either from pregnancy or from multiple blood transfusions, is a rare occurrence compared to the frequency which is theoretically possible. At present there are many practical difficulties attendant upon routine typing of bloods for the Rh factor and the testing of sera for the presence of anti-Rh agglutinins. Typing serum is difficult to obtain in sufficient quantities. The only satisfactory source now known is from the blood of persons who have been immunized by multiple blood transfusions or from the blood of women who have borne erythroblastic children. A disappointingly small number of these women possess sufficiently potent antibodies to serve as typing serum. The technic of testing bloods for Rh incompatibility prior to transfusion is far from satisfactory. The appropriate cells and serum must be incubated at 37 degrees centigrade for at least thirty minutes. Clumps resulting from the presence of agglutinins are frequently very small and difficult to interpret. Differentiation from rouleau formation is occasionally uncertain. Some reactions from incompatible trans-

fusions cannot be prevented by any known method of cross matching.

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SOME OBSERVATIONS ON THE DETERMINATION OF THIOCYANATE IN BLOOD SERUM AND PLASMA

R. B. GIBSON, Ph.D.

In the course of routine thiocyanate determinations for the control of hypertension therapy, it was noted that inconsistent and unexpectedly low results were obtained when blood plasma was employed instead of serum. Barker's procedure^{1,2} calls for "serum or plasma," and Barker's procedure is the method recommended in recently published clinical laboratory manuals.* Clinical reports of "blood thiocyanate" have sometimes failed to specify whether serum, plasma or whole blood was used. Crandall and Anderson,³ using essentially Barker's method, state that "This procedure cannot be used with whole blood, although a small amount of hemolysis does not impair the accuracy of the determination in serum."

Fortunately, and perhaps fortuitously, studies on so-called available water content in the body, have also been carried out with the technic of Lavietes, Bourdillon and Klinghoffer.⁴ These investigators collected blood under oil, used serum for the thiocyanate determination, and added an equal volume of the ferric nitrate (Schreiber's⁵) reagent to the trichloroacetic acid filtrate instead of 1 volume of reagent to 5 of filtrate as in Barker's procedure. These writers state also that following its administration the concentration of thiocyanate present in the blood cells is about the same as in the serum. Molenaar and Roller⁶ say that the membrane of uninjured (heparinized) red cells are impermeable to thiocyanate, but permeability of the cells is generally assumed in available water measurements.

The present study was undertaken to determine

From the Pathological Chemistry Laboratory.

*To 5 cc. of 10 per cent trichloroacetic acid in a test tube, add 5 cc. of serum or plasma. Stopper and shake well. Allow to stand for 10 to 15 minutes and filter. Transfer 5 cc. of the clear filtrate to a test tube. Add 1 cc. of the ferric nitrate reagent and mix. Prepare 3 standard tubes containing 0.5, 0.35 and 0.20 mg. of CNS in 5 cc. respectively, add to each 5 cc. of trichloroacetic acid and 2 cc. of ferric nitrate reagent and mix. Compare the unknown with the nearest standard in a colorimeter; or determine photometrically after preparing a calibration curve (*Am. J. Clin. Path. Tech.*, Suppl. 2, 153, 1938).

the effect on the analysis of the anticoagulant employed, the merit of the collection under oil, and the extent of thiocyanate penetration into the blood cells. Before considering these points, however, the optimum proportion of ferric nitrate reagent and filtrate for maximum color development (1 cc. to 5 cc. of reagent for 5 cc. of filtrate) was established and the disputed question of fading made clear.

Maximum Color Production—Twenty cubic centimeters of a standard containing 10 mg. KCNS per 100 cc. solution, were diluted to 60 cc. and 20 cc. of 20 per cent trichloroacetic acid added. To 5 cc. of this mixture was added 1 cc. of Schreiber's reagent for a standard, and 2, 3, 4 and 5 cc. respectively of the reagent to similar 5 cc. portions. Colorimetric thiocyanate recoveries, corrected for dilution with the reagent and taking the 1 cc. reagent addition as 100, were respectively 110, 121, 123, and 125. When 5 cc. of the same thiocyanate solution was oven dried, made up to 3 cc., and 3 cc. of Schreiber's reagent added, the ratio was 100:124. Equal volume of filtrate and ferric nitrate reagent should be employed for maximum color development.

Fading—According to Laviets, Bourdillon and Klinghoffer, the color produced when the ferric nitrate reagent is added to trichloroacetic acid serum filtrate fades after ten minutes. Chesley⁷ has stated that the color is stable two hours. Molenaar and Roller failed to confirm the results of Laviets, Bourdillon and Klinghoffer with reference to fading. We have found that the color is promptly developed and fades rapidly unless the tubes are kept in subdued light or in the dark.

Readings with the Fisher electrophotometer were made on 2 standard KCNS solutions and 4 trichloroacetic acid serum filtrates 5, 10, 30, and 60 minutes and 18 hours after the development of color with the reagent. The color tubes were kept in subdued light and overnight in darkness. The logarithmic readings proportional to the color intensity for one filtrate tube were 46.6, 46.7, 45.7, 44.5, and 41.5 respectively. The other standard and serum filtrates were consistent. Tubes kept in bright light (not sunlight) faded so rapidly that such exposure for between two and three hours lead to almost complete loss of color. Twenty milligrams per cent standard tubes were decolorized completely in eighteen minutes in sunlight transmitted through window glass.

Effect of Anticoagulants on the Thiocyanate Reaction—The effects of sodium oxalate, sodium fluoride, and sodium citrate added to serum filtrates containing thiocyanate, when 1 cc. and 5 cc. of the Schreiber reagent were added to 5 cc. of filtrate and read in a colorimeter against standards

made with similar proportions of trichloroacetic acid and reagent, were studied. A measured amount of each solution of anticoagulant was oven dried in a tube and then dissolved in 5 cc. of serum filtrate (serum 1, water 3, and 20 per cent trichloroacetic solution 1 part by volume). With 1 cc. of the reagent, both oxalate and fluoride progressively inhibited the color development in increasing concentrations over the minimum ordinarily used to prevent coagulation (usually 3 mg. per 1 cc. of blood). Equal volumes of filtrate and reagent, however, gave a maximum color both for oxalate and fluoride containing filtrates. Citrate did not inhibit the reaction with 1 cc. of reagent but gave some color in the blank.

Permeability of Red Cells to the Thiocyanate Ion—Blood samples drawn from two patients were defibrinated or heparinized (0.1 cc. heparin to 20-25 cc. of blood). Measured amounts of blood were introduced into graduated centrifuge tubes or flasks containing the desired amounts of KCNS (solution) oven dried in the tubes. The tubes were incubated for two hours at 37° centigrade and then centrifuged. The two hours represent the usual lapse of time between injection of thiocyanate and withdrawal of the blood sample in available body water tests. The serum or heparinized plasma was drawn off, and the tubes again centrifuged until constant values for cell volume were obtained.

Electrophotometer (Fisher) determinations of serum thiocyanate were made using the micro attachment and a number 436 filter. One cc. of serum was diluted to 9 cc. and precipitated with 1 cc. of 20 per cent trichloroacetic acid. Five cubic centimeters of Schreiber's reagent (ferric nitrate 25 grams, concentrated nitric acid 12.5 cc., water to 500 cc.) was added to 5 cc. of the filtrate. The thiocyanate distribution between serum and cells was calculated. There was little difference in the thiocyanate concentration of heparin plasma and of defibrinated blood serum in paired tests (3 patients). The percentage recovery in serum of KCNS added to the blood varied inversely with the blood thiocyanate level. For example, at a 10 milligrams per cent level, 81 per cent of the added thiocyanate was in the serum from heparin-blood and at a blood level of 25 milligrams per cent the serum contained 76.4 per cent.

Thiocyanate Shift—A thiocyanate shift from cells to serum was found. Colorimetric thiocyanate determinations on two specimens of serum from defibrinated blood samples containing 20 milligrams per cent of KCNS, showed a recovery in the serum at 0.5 hour at 37° centigrade of 69.5 and 65 per cent, at 1.5 hours of 73.5 and 70 per cent, at 3.5 hours of 81 and 79 per cent and

at 6.5 hours of 84.5 and 83.5 per cent. Blood from two other subjects allowed to clot under oil showed no such shift in the same period. By photoelectric measurement the shift was found to occur whether the blood was kept at 37° centigrade or at room temperature, but it did not take place if the blood was overlaid with oil. Blood drawn from a hypertensive patient at intervals of four days after thiocyanate treatment (0.33 gram per day) was collected under oil and defibrinated. A portion was centrifuged under oil immediately and the serum drawn off; two other portions were kept for six hours, one under oil, the other exposed to air. KCNS determinations on the fresh, oil-covered, and exposed serum samples were for Day 5 of treatment, 6.4, 6.0 and 6.6 mg. per cent, Day 9 of treatment, 10.5, 9.9 and 11.2 mg. per cent, and for Day 13, 16.2, 15.9 and 17.2 mg. per cent, respectively.

Summary—The color produced by Schreiber's ferric nitrate reagent with thiocyanate is maximum when equal volumes of reagent and serum filtrate are employed but fades on exposure to light. Oxalates and fluorides inhibit the color development in Barker's procedure, but no inhibition occurs if equal volumes of filtrate and reagent are used. Heparinized and defibrinated blood cells are both permeable to the thiocyanate ion, the more concentrated the thiocyanate the still greater concentration in the cells. An in vitro thiocyanate shift from cells to serum occurs on exposure to air. Serum separated from blood collected under oil should more exactly represent the actual intravenous plasma content of thiocyanate. The results confirm and explain the validity of the technic of Lavietes, Bourdillon and Klinghoffer in available water studies.

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Skeleton meeting of the House of Delegates will be held in Des Moines April 18 and 19 at Hotel Fort Des Moines.

BACTERICIDAL LAMP CONJUNCTIVITIS

ROLAND ROOKS, Ph.D.

The Council on Physical Therapy of the American Medical Association has accepted certain ultraviolet lamps for disinfecting purposes. This acceptance is "limited to ultraviolet disinfecting lamps designed for installation in hospital nurseries, hospital wards and operating rooms."¹

In lamp installations the danger of direct exposure, especially to the eyes, has been recognized but the rather significant percentage of indirect rays which are reflected from the lamp or even from a wall or floor surface has not been generally appreciated. For this reason the following observations are of interest.

I. *Rays from the lamp's reflector*—A member of the staff tested the output of a lamp emitting rays of 2,537 Angström's units, the meter used being a tantalum photocell which clicks once for each exposure of 200 microwatt seconds per square centimeter. During this measurement his eyes were carefully protected against the direct rays of the lamp. He had previously suffered three attacks of conjunctivitis due to careless exposure to direct rays. In order to ascertain whether reflected rays would cause these symptoms, he deliberately exposed his eyes to such rays as might be coming from the lamp's reflector. The measured dosage of these reflected rays to which he subjected himself was fifteen clicks, as defined above. The distance of his eyes from the reflector was eighteen inches and the duration of exposure was seven minutes. That night, some twelve hours later, he was awakened from sleep by the symptoms of a moderately severe conjunctivitis characterized by pain, lacrimation, photophobia, and the sensation of "sand in the eyes." This subsided within a few hours but was distressing during the acute stage. He was unwilling to repeat the experiment to ascertain whether a lower dosage would cause symptoms.

Taking an exposure of fifteen clicks as a basis, additional readings were made to find whether this dosage could result from lamps improperly installed. It was found that at a distance of five feet from the lamp, the rays from the reflector attained a dosage of fifteen clicks in three and one-half hours. This means that with the lamp installed seven feet above the floor, a person lying on a nearby bed with eyes unprotected against the lamp's reflector for several hours could receive a dosage of this amount. This may be of importance in nurseries, since babies may watch the reflector unless completely shielded from it.

II. *Rays reflected from walls*—The lamp was

turned to face a wall, one foot distant, and the meter was set up slightly above the lamp and two feet distant from the wall. In this location the meter recorded fifteen clicks in fifteen minutes when the wall was of a soft surface. It recorded fifteen clicks in seven and one-half minutes when the lamp faced a hard-surfaced hospital wall.

This latter measurement was observed by a hospital electrician, who was wearing glasses and who stood behind the meter. He was warned as to the possible effect of the rays reflected from the wall. However, during conversation he turned his face sidewise to the wall in which position the glasses no longer protected one eye. He received a sufficient dosage of reflected rays to cause a conjunctival irritation in the outer portion of the left eye. The exact dosage which he received is not known, but it was received during the interval of thirty minutes which the series of readings in that room required. Thus, walls, especially hard-surfaced walls, *do* reflect appreciable amounts of these rays.

III. *Rays reflected from concrete floors*—The lamp was faced downward at a distance one foot above a smooth concrete floor. The meter was placed three and one-half feet above the floor, which is the approximate level of the eyes of an individual seated in a chair. The rays reflected from the floor to the meter in this instance traveled approximately five feet. The meter in this position recorded fifteen clicks in three and one-half hours. Thus, the rays definitely are reflected from concrete floors.

In a recent publication it is suggested that "floor irradiation be combined with ceiling irradiation in barracks or hospital wards to determine the effect, if any, of ultraviolet irradiation in lowering morbidity rates or preventing cross infection."² A warning is included in this report to the effect "that certain types of flooring may prove to be capable of reflecting sufficient amounts of ultraviolet to cause harmful effects."

The observations recorded above indicate that the rays reflected from the lamp's reflector or from walls or floors may be sufficient under certain conditions, over a period of minutes or hours, to cause conjunctivitis.

The intensity of radiation is inversely proportional to the square of the distance between the point of source and the irradiated surface so that control of the distance over which the reflected light must travel affords a safeguard. By aiming all direct and reflected rays toward a ceiling of soft finish, it should be possible to control the distance and thus to avoid significant dosages of rays reflected therefrom. However, it would appear

difficult safely to irradiate the floors in occupied rooms because of the reflected rays.

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HOUSE OF DELEGATES MEETING

Although it will be impossible to hold the usual annual scientific program in 1945 due to the wartime restriction on conventions, it is planned to have a skeleton meeting of the House of Delegates in order to transact the necessary business of the Society. Plans are now being made to have each district represented by three delegates who, together with the Executive Council, will carry on, yet still keep the number of those present under the limit of fifty.

It was hoped originally that it would be possible to provide proxies for the delegates not present, but legal opinion is that our constitution and by-laws prohibit this because they specifically provide for an alternate should the delegate be unable to attend. Consequently, it is hoped that the district will feel adequately represented by the three delegates chosen to come to the meeting.

The officers of the State Society feel it is much better to have this skeleton meeting of delegates than to let the Executive Council assume the whole responsibility, which we are told would be permissible under the constitution and by-laws. Ours is a democratic society and we wish to preserve it as such even under the restrictions of wartime. Ours is also a loyal and patriotic society, and we are confident its members would not welcome any attempt to violate the ruling limiting attendance at meetings to not over fifty persons from out of town. We all hope that next year it will be possible to resume the usual procedure of holding an annual scientific session and full meeting of the House of Delegates, but in the meantime our effort will be directed toward doing the best we can under the circumstances and helping as much as possible to bring an early conclusion to the war.

IOWA CONFERENCE ON CHILD DEVELOPMENT AND PARENT EDUCATION

The annual Iowa Conference on Child Development and Parent Education, usually held in Iowa City, will not meet this June because of ODT travel restrictions. There will be a five-day Workshop in Home-School Cooperation, June 14, 15, 16, 18, and 19, sponsored jointly by the Iowa Child Welfare Research Station, the National Congress of Parents and Teachers, and the Iowa Congress of Parents and Teachers. The workshop is designed both for students on campus and for others interested in this field, and carries one semester hour of credit. Dr. Ralph H. Ojemann will act as coordinator. Detailed information may be secured by writing the Iowa Child Welfare Research Station, Iowa City, Iowa.

STATE DEPARTMENT OF HEALTH

Valer L. Biering

Sixty-Fifth Anniversary of State Department (Board) of Health

April 23 is a significant day on the 1945 calendar in marking the sixty-fifth anniversary of the inception of the Iowa State Department of Health.

The first Biennial Report of the State Board of Health, published in 1882, contains the secretary's report which begins as follows:

"Pursuant to chapter 151, laws of the Eighteenth General Assembly, the Governor (Hon. John H. Gear), on the twenty-third day of April, A. D., 1880, commissioned the following persons to constitute the State Board of Health:

William S. Robertson, M.D., Muscatine; Phillip W. Lewellen, M.D., Clarinda; Wilmot H. Dickinson, M.D., Des Moines; Henry H. Clark, M.D., McGregor; Justin M. Hull, M.D., Lake Mills; Ephraim M. Reynolds, M.D., Centerville; George F. Roberts, M.D., Waterloo; James L. Loring, Civil Engineer, Dallas Center; John F. McJunkin, attorney general, Washington."

Dr. W. S. Robertson was elected president and Mr. L. F. Andrews, secretary, at the first meeting held at the State Capitol on May 5, 1880. Dr. Robert Farquharson became medical secretary on May 5, 1881. He served for three years until his untimely death in 1884.

IOWA'S HEALTH IN 1880

The foregoing Biennial Report for the period 1880-1881 contains the Introductory Address of President Robertson, presented May 5, 1880, and which reads in part as follows:

"It is a subject of gratulation that the last legislature has placed our State abreast of so many of her sister States on the good work of sanitary progress, by creating a State Board of Health, which may inaugurate such measures as will materially limit the spread, and reduce the mortality of many of the diseases of the country; and, if necessary, enforce such sanitary regulations as



IOWA STATE BOARD OF HEALTH

Commissioned by Governor John H. Gear, April 23, 1880

Upper row, left to right: William S. Robertson, M.D. (R); Wilmot H. Dickinson, M.D. (H); Henry H. Clark, M.D. (R);
Ephraim M. Reynolds, M.D. (R).
Lower row: Phillip W. Lewellen, M.D. (R); George F. Roberts, M.D. (H); Justin M. Hull, M.D. (E).

will largely stamp out these influences which become prolific causes of disease.

"It is an old proverb that 'forewarned is forearmed'. It shall then become our duty to do much toward educating the people in the principles of hygiene and sanitary reform; to show them something of the nature and many of the causes of disease, and to impress them with the knowledge of the fact that in their manner of life, and in their every day surroundings, lie many of the means of inducing or preventing the encroachments of disease."

The address, covering well over two closely printed pages, ends as follows:

"In conclusion, Gentlemen, let me express the hope that the operation of this Board in the sanitary measures it may inaugurate and carry out, may so demonstrate the wisdom of its creation that it may prove a blessing to the whole State and that, with advancing years it may develop a strength and influence for good which shall make Iowa one of the most salubrious, as it is one of the most prosperous, States of our confederation."

The same biennial report contains accounts of severe epidemics of diphtheria, typhoid fever, and smallpox of sixty-five years ago. Of particular interest is the report by the late Ward Woodbridge, M.D., of diphtheria (54 cases, 15 deaths) in Wau-beek, Linn County, and vicinity; also articles dealing with Water Supply, Slaughter Houses, Gland-ers, Adulteration of Food, Diseases of Domestic Animals, Disposal of Excreta, and Smallpox Hos-pital, the last named with illustrations of floor plans and construction of an Isolation Hospital for smallpox patients.

COMMUNITY HEALTH IN 1945

The leaders who guided the State Department of Health in its infancy, lived at the threshold of the New Era in Medicine. Although the causa-tive agents of diphtheria and tuberculosis were unknown in 1880, discovery of the typhoid bacil-lus was announced in that year, followed during the eighties and nineties by many similar, epoch-making discoveries in the realm of bacteriology and immunity.

Today, in 1945, we reap the benefits of knowl-edge, cumulative through the closing decades of the nineteenth century and the years thus far in the twentieth century. In 1880, public water sup-plies were untreated and pasteurization unknown; in 1945, community life could scarcely exist with-out modern Public Health Engineering. In that day there was but little of chemotherapy and anti-sepsis—now, the marvels of sulfatherapy, peni-cillin, aseptic surgery; then a period of peace—today, the critical throes of a second World War; then, the vivid memory of Florence Nightingale—now, the Public Health, the Visiting and the Red

Cross nurse. At that time there was the small community and the village blacksmith—today, the age of the Machine, of Industrial Hygiene, of Maternal and Child Health, of Certification of Births and accurate recording of Deaths; yester-day, diphtheria and the pest house—today, the spectre of communicable disease still raises its head, throttled however by increased emphasis upon immunization, x-ray therapy, measures for disease control, and adequate local health organ-ization.

The health structure of 1945 was made possible by the solid foundation laid in 1880. The vision and foresight of founders and silent witnesses impel attending physicians and all public health workers to a rededication of effort as together we face new horizons.

IMMUNE SERUM GLOBULIN AVAILABLE THROUGH AMERICAN RED CROSS

A letter to the Commissioner from G. Foard Mc-Ginnes, M.D., National Medical Director, American Red Cross, dated March 5, 1945, reads in part as follows: "The plan (for supplying immune serum globulin) has been modified in that the entire cost of processing and delivering the globulin to the state health departments wishing to use it will be borne by the American Red Cross. Funds have been appropriated for this purpose on the ground that globulin accumulated in excess of the needs of the armed forces should be given back to the American people, who have made it available through the American Red Cross Donor Service.

"Accordingly, as long as the present stock lasts, the American Red Cross will be glad to supply im-mune serum globulin at no cost, in quantities to meet the civilian needs within your jurisdiction. This will be done on condition that the product will be used for the prophylaxis, modification and treat-ment of measles, that it will be distributed with-out charge to physicians, hospitals, and clinics in accordance with applicable laws and regulations, and that it will be administered in accordance with established standards and without any charge to the patient for the product."

The State Department of Health has a supply of immune serum globulin (gamma globulin), secured from the American Red Cross and available for dis-tribution to physicians and hospitals in Iowa.

PREVALENCE OF DISEASE

Disease	Feb. '45	Jan. '45	Feb. '44	Most Cases Reported From	
Diphtheria	8	21	19	Clinton, Scott	
Scarlet Fever	271	389	718	Polk, Union, Dubuque	
Typhoid Fever	*14	0	1	Polk, Cerro Gordo	
Smallpox	1	0	3	Union	
Measles	94	127	1515	Woodbury, Guthrie, Pottawattamie	
Whooping Cough..	17	32	86	Webster, Dubuque	
Brucellosis	*99	8	15	For the State	
Chickenpox	420	354	313	Dubuque, Des Moines, Woodbury	
German Measles ..	5	0	11	Boone, Allamakee, Des Moines	
Influenza	0	0	150	.....
Malaria	3	4	0	Black Hawk, Polk, Wapello	
Meningococcus					
Meningitis ...	8	8	23	Iowa, Scott	
Mumps	311	380	123	Dubuque, Johnson, Black Hawk	
Pneumonia	21	43	87	Boone, Marion	
Poliomyelitis	2	0	0	Lyon, Webster	
Tuberculosis	91	53	60	For the State	
Gonorrhea	217	266	143	For the State	
Syphilis	144	143	224	For the State	

*12 of the 14 Cases are Delayed Reports
*99 Delayed Reports

The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

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DENNIS H. KELLY, Associate Editor.....Des Moines

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COLLEGE OF MEDICINE DIAMOND JUBILEE ANNIVERSARY NUMBER

This issue of the JOURNAL is of special significance on two counts. First, it is the third consecutive annual number in which all of the scientific articles have been prepared by the faculty of the College of Medicine at Iowa City. And second, as recorded on the opening page of this issue in the remarks of Dean MacEwen to the members of the Iowa State Medical Society, it is dedicated to commemorating the seventy-fifth, or diamond, anniversary of the founding of the School of Medicine.

For a number of reasons we are exceedingly pleased and prideful in being able to present this number to you—our readers. We feel it is an important means of bringing those of us engaged in private practice out over the state in closer contact with the teaching staff at our medical school. That the faculty of the College of Medicine has been similarly impressed is amply demonstrated by the willingness with which the members have prepared papers and by the excellence of the subject material they have presented. We are sure you will find it an interesting and valuable issue indeed. We should like to take this opportunity of thanking Dean MacEwen, the committee who compiled the material—Dr. Stuart Cullen and his associates, Dr. Sahs and Dr. Scheldrup—and the faculty members who prepared manuscripts. So generous were these latter that, regretfully, owing to paper limitations, we have been forced to hold over one manuscript for publication in the May issue.

We would also call your attention to Dr. Walter Bierring's article in the History of Medicine section where another birthdate—a golden anniversary—is celebrated. Fifty years ago in the De-

partment of Pathology at the State University diphtheria antitoxin was first prepared in Iowa by Dr. Bierring. As one reads of this early experience he can scarcely avoid reviewing in his mind's eye the tremendous strides made by medical science in the professional lifetime of one individual.

We know, too, that this Diamond Jubilee number of the JOURNAL will be welcomed by the alumni of the College of Medicine in military service. We hope it reaches all of them wherever they may be. Many of them would be at Iowa City on September 27 and 28 to help Dean MacEwen and his faculty in the commemoration exercises for the Diamond Jubilee Anniversary were it not for their military obligations. While receipt of the JOURNAL at some foreign port is at best a poor substitute to an Iowa alumnus for home, friends, and attendance in person at Iowa City, nevertheless it is something, and we can only hope that the hearts of some of our Iowa physicians will be gladdened a little as they read these articles by the teachers from their alma mater.

ELLENDER BILL (S. 637) INTRODUCED TO ENSURE FUTURE SUPPLY OF PHYSICIANS AND DENTISTS

On March 10 we received the following letter from your President, Dr. M. C. Hennessy. We are in entire agreement with his opinions and are happy to respond to his request.

"I am enclosing a copy of the Ellender bill. I think the Iowa State Medical Society should support this bill. If we do not, there is going to be a dearth of physicians when this war is over, and certainly, if in other communities in the state doctors who are now in practice at home are breaking down as they are in my community, I am positive there will be a shortage of medical men in Iowa. Our doctors here are doing a grand piece of work and they aren't youngsters any more; each day is taking something away from them, and I am sure this is true in other parts of the state, and so if you feel you can honestly support this bill to the extent of writing an editorial for the JOURNAL, I feel it would help pass it."

Below is reprinted in full S. 637 which has been introduced into the Senate of the United States Congress by Senator Allen J. Ellender of Louisiana and is now in the hands of the Committee on Military Affairs. This bill should be passed by Congress. The JOURNAL urges that every member of the Iowa State Medical Society communicate with his congressman in Washington to enlist support for its passage.

Under present regulations of the Army and Navy only those physically unfit for military duty,

discharged veterans, and women will be available for freshmen classes in medical schools in 1945. The result of this shortsighted policy in the supply of physicians four years later may well be of disastrous proportions in the future medical care of the nation. If, as is now proposed, a relatively large peacetime military force is maintained, many physicians will be required and will therefore not be available for civilian duty. The needs of veterans hospitals for physicians will be great. Furthermore, the supply of civilian physicians is being depleted annually by some four thousand deaths plus many who are forced to retire by age or illness. These are only the major sources which will operate to reduce the supply of doctors available for civilian duty in the postwar period. There are others.

Senator Ellender's bill aims at preventing this catastrophe. Should the war be prolonged, it would also provide for a supply of able-bodied doctors for military service. Please read the bill in its entirety and then communicate at once with your congressional representatives. It's important!

A BILL

To authorize the release of persons from active military service, and the deferment of persons from military service, in order to aid in making possible the education and training of physicians and dentists to meet essential needs.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That, to the extent that the President deems to be (1) feasible, (2) compatible with military operations, and (3) necessary or desirable in order to make possible the education and training as physicians and dentists of as many persons as are necessary to provide the minimum number of medical doctors and dentists required to meet the essential needs of the civilian population (especially in rural areas) and the armed forces for medical and dental services in the future, the President is authorized to provide for the release from active duty in the armed forces of men who have completed more than one year of honorable service in such forces during the present war and who have satisfactorily completed a substantial portion of the medical, dental, premedical, or predental education and training necessary to qualify them as physicians or dentists, in order to enable such persons to pursue further such education and training. The release of any person from active duty for the purposes of this section may be conditioned upon his acceptance by an accredited school and the pursuit of such education and training in a satisfactory manner.

Sec. 2. Section 5 of the Selective Training and Service Act of 1940, as amended, is hereby amended by adding at the end thereof the following new subsection:

"(n) In order to make possible the education and training as physicians or dentists of as many persons as are necessary to provide the minimum number of medical doctors and dentists required to meet the essential needs of the civilian population (especially in rural areas) and the armed forces for medical or dental services in the future, the President shall, under such rules and regulations as he may prescribe, provide for the deferment from training and service under this Act in the land and naval forces

of the United States of those men who are found in accordance with section 10 (a) (2) to be enrolled in the national medical and dental education program. The President shall provide for the enrollment, under such rules and regulations as he may prescribe, in a national medical and dental education program (hereinafter referred to as the "program") of such persons as he deems necessary to be enrolled in such program, in order that they may be deferred under this subsection from training and service under this Act, subject to the following limitations:

"(1) (A) The number of men enrolled in the program for the purpose of permitting them to pursue first-year premedical education and training shall not exceed eight thousand at any one time.

"(B) The number of men enrolled in the program for the purpose of permitting them to pursue first-year predental education and training shall not exceed three thousand five hundred at any one time.

"(2) (A) The number of men enrolled in the program for the purpose of permitting them to pursue second year premedical education and training shall not exceed eight thousand at any one time prior to the end of the third month of the academic year and shall not exceed four thousand five hundred at any one time after the end of the third month of the academic year, and after the end of such third month shall not include anyone who has not been accepted for admission to the earliest subsequent entering class of an accredited medical school following the satisfactory completion of such second-year premedical education and training.

"(B) The number of men enrolled in the program for the purpose of permitting them to pursue second-year predental education and training shall not exceed three thousand five hundred at any one time prior to the end of the third month of the academic year and shall not exceed one thousand seven hundred and fifty at any one time after the end of the third month of the academic year, and after the end of such third month shall not include anyone who has not been accepted for admission to the earliest subsequent entering class of an accredited dental school following the satisfactory completion of such second-year predental education and training.

"(3) No man shall be enrolled in the program for the purpose of permitting him to pursue premedical or predental education and training for more than two years.

"(4) (A) The number of men enrolled in the program for the purpose of permitting them to pursue first-year, second-year, third-year, or fourth-year medical education and training shall not exceed four thousand five hundred in each of such classes at any one time.

"(B) The number of men enrolled in the program for the purpose of permitting them to pursue first-year, second-year, third-year, or fourth-year dental education and training shall not exceed one thousand seven hundred and fifty in each of such classes at any one time."

In determining the number of men who may be enrolled in the program, the President shall take into consideration and make due allowances for the number of physicians or dentists who may be obtained through the education and training of other persons not enrolled in the program, including veterans of the armed forces, women, and persons not qualified for military service. The limitation on the number of men who may be enrolled in the program shall not be deemed to be a limitation on the total number of students who may be enrolled in medical, dental, premedical, or predental schools; but shall be deemed to be a limitation only on the number of men who may be deferred under this subsection who shall be in addition to students who may be obtained from other sources. Persons shall not be enrolled in the program for the purpose of permitting them to pursue

sue medical or dental education and training at any schools except medical and dental schools whose graduates are acceptable to the armed forces for commissioning as medical doctors or dentists. The number of men who may be enrolled in the program for the purpose of permitting them to pursue each of the two respective years of premedical or pre-dental education and training shall be allocated by the President among the several states on the basis of population, as determined by the 1940 census. The men to be enrolled in the program from each state for the purpose of permitting them to pursue such education and training shall be selected from among applicants within such state, in such manner as the President may prescribe. In making such selections, representatives of accredited schools which offer full-time medical, dental, premedical, or pre-dental courses of instruction shall be consulted and their services may be utilized. No man who fails to make satisfactory progress in pursuing his education and training shall be permitted to continue to be enrolled in the program.

IMMUNE SERUM GLOBULIN AVAILABLE FOR PREVENTION AND MODIFICATION OF MEASLES

The JOURNAL is pleased to publish the following release on the use of immune serum globulin for prevention and modification of measles, which was received from the American Red Cross with the request that the information be disseminated as widely as possible among the doctors in Iowa:

"Immune serum globulin for the prevention and modification of measles is now being distributed for civilian use by the American Red Cross, Chairman Basil O'Connor announced recently. The expense of processing and distributing the material is being met by the Red Cross.

"The immune serum globulin is derived from blood collected by the American Red Cross as a by-product in the processing of serum albumin, which is used by the armed forces. There is now more immune globulin available than is needed for military use, according to O'Connor. The navy, under whose control it is being produced, has released the surplus of the crude material to the American Red Cross so that it can return to the people this valuable agent derived from the blood they have so generously given.

"This product of human blood, which has been developed through wartime medical research, is the most valuable agent known for the prevention or modification of measles when administered to a susceptible individual within five days after exposure to the disease,' said O'Connor. 'It is necessary to inject only a small amount under the skin to modify measles, while a somewhat larger amount has been found to be almost 100 per cent effective in preventing the development of measles in an exposed individual.' The protection furnished by the immune serum globulin, while temporary in character, is of great value in controlling out-

breaks and in preventing the dangerous complications of the disease.'

"The immune serum globulin will be supplied by the American Red Cross without charge to state and territorial health departments or local health departments where biologics are not supplied by the state. They, in turn, will distribute it without charge to physicians, hospitals, and clinics for administration in accordance with established standards and without any charge to the patient for the immune globulin."

DON'T NEGLECT CANCER*

Never before have we been so aware of the life saving power of scientific research. Out of the laboratories and on to the firing line where millions of our young men are risking their lives, have gone sulfa drugs, penicillin, dried blood plasma. From the past we can take the names of killers conquered by science—yellow fever, smallpox, diphtheria, typhoid.

Today research against cancer stands on the threshold of new and great advances. It has already given us ways of producing and of controlling the production of the disease in laboratory animals. It has begun to give us knowledge of how cancer cells differ from normal cells.

But cancer research needs financial support and more trained workers. It must be given the material aid and security to make it efficient and increasingly powerful.

Never before have we understood so well how to organize for the detection of precancerous conditions or to identify cancer in its early and curable stages.

Few as yet realize the nature of the emergency which cancer presents. There are 17,000,000 living Americans who will die of cancer unless something is done. There are at least 5,500,000 of them who can be saved from death from cancer by simple, direct means.

You who read this are one of the "means" by which these lives can be saved. Learn the danger signals that may mean cancer and the ways in which the risk of cancer may be decreased. Pass this information on to others. Enlist during April in the Field Army of the American Cancer Society. If one of the danger signals appears either in your own life or in that of a friend insist on prompt fearless action. Go to your doctor for examination and advice.

Education alone can save millions of lives even if research does not advance. No one can afford to be too busy to neglect this challenge. It is a

*Prepared by Clarence C. Little, D.Sc., Managing Director, American Cancer Society.

choice between intelligent protection of yourself and those you love on the one hand, and ignorant risk of health, happiness and perhaps life itself, on the other.

The American Cancer Society has been for over thirty years the one great national organization devoted to study and development of plans for cancer control. It stands firmly on three fronts where it is face to face with the enemy—Research, Service, Education. It is going forward in support of all of these fields. It is going to take with it millions of Americans, who realize the great need and their power to help.

The American Cancer Society has a division of its Field Army in Iowa with headquarters in Mason City. Anyone desiring information may write Mrs. C. V. McCarthy, Commander and Executive Director of the Iowa Field Army, at 215 Second Street S. E., Mason City.

FEDERAL REGULATION GOVERNING AD- MISSION TO THE CRIPPLED CHILD- REN'S DIAGNOSTIC SERVICES AFTER JULY 1, 1945

The United States Children's Bureau has forwarded the following communication to the Journal concerning regulations relating to services for crippled children:

"Effective July 1, 1945, it shall be a condition of approval of a plan that it provide that diagnostic services will be made available thereunder to crippled children without restrictions as to race, color, creed, economic status, legal residence, age (except as to persons above the maximum age for which such services are legally available within the State), the necessity of referral by any person other than the child's parents or legal guardian, or similar restrictions inconsistent with the free availability of such services."

(Signed) FRANCES PERKINS.
Secretary.

Miss Katharine F. Lenroot, Chief, Children's Bureau, discusses the regulations in the following terms:

In 1938 the Children's Bureau Advisory Committee on Services for Crippled Children made among others the following recommendations:

(1) "That the State agencies make such provisions for diagnostic services as will permit the decision concerning eligibility for treatment to be based on the estimated cost of medical care in relation to social and economic resources."

(2) "That State agencies assume final responsibility for determination of eligibility and seek to eliminate court-commitment procedures."

The committee recognized, therefore, that in order for a State agency to reach an intelligent decision as to the need of a crippled child for *care and*

treatment, it was essential that *diagnostic* services be provided so that the nature of the crippling condition, the type and amount of medical and surgical care indicated, and the estimated cost of providing the necessary care may be known and that this information may be considered in relation to the social and economic resources of the family as a basis for determining the child's need for treatment services under the State program. Also the responsibility for such determination is to rest with the agency that administers the State program and not with any other agency, organization, or individual.

During the period of initial development of the State services for crippled children many State agencies included in their State plans provisions for certain eligibility requirements for the admission of children to diagnostic clinics. In general, these requirements pertained to age, residence, and economic status and to referral of the child by a physician.

Since 1938 the Children's Bureau has sought to carry out the recommendations of its advisory committee and the great majority of State agencies have adopted the recommendations with the result that the determination of eligibility for care and treatment is being made after appropriate medical diagnosis and after necessary social data have been obtained. The wisdom of following such a policy is more apparent at the present time than ever before in view of the widespread movement of families across State lines, the frequent lack of regular employment of the services of a "family" physician, and in some areas the unavailability of such services.

In a few States, however, there are still some requirements that a child must meet before his need for treatment services can be determined. A few States agencies, for example, make a preliminary investigation of the financial situation of the family and may declare a child ineligible for care before the medical condition is actually known. This appears to be an unsound procedure since the diagnosis and approximate cost of treatment must be known in order to decide whether or not the family can meet these costs unaided. The requirement that a child must have lived in the given State or a given county for a period of months or years before he can receive diagnostic services is a restriction imposed by very few States; it is apparent that such a restriction may be extremely harmful to the crippled child by delaying necessary treatment. In a few States, the State agency has set up a requirement that a child can be seen in a State crippled children's diagnostic clinic only if the child has been referred to the clinic by a physician. When, as a result of such a requirement, a child is barred from receiving an examination to determine his need for care, either because of the unavailability of a physician to make the referral, the reluctance on the part of the parent to request a written referral, or for other similar reasons, it becomes apparent that such a requirement may become an obstacle to the child's receiving the care and treatment he needs. The primary intent and purpose of the provisions under title V, part 2 of the Social Security Act is to locate crippled children and to assure to all crippled children found to be in need of care the services necessary to bring about the greatest degree of physical restoration and social adjustment that can be attained.

The policy set forth in the Secretary's regulation does not represent any departure from policies usually followed in comparable public programs of medical care. In many States, for example, services and facilities for the diagnosis of tuberculosis

(Continued on page 155)

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Lucas.....	H. D. Jarvis, Chariton.....	R. E. Anderson, Chariton.....	S. L. Throckmorton, Chariton
Lyon.....		J. H. Sherlock, Rock Rapids.....	G. M. DeYoung, George
Madison.....	H. E. Carver, Earlham.....	E. M. Olson, Winterset.....	C. B. Hickenlooper, Winterset
Mahaska.....	C. N. Bos, Oskaloosa.....	F. A. Gillett, Oskaloosa.....	L. F. Catterson, Oskaloosa
Marion.....	F. M. Roberts, Knoxville.....	E. C. McClure, Bussey.....	E. C. McClure, Bussey
Marshall.....	B. S. Wells, Marshalltown.....	G. M. Johnson, Marshalltown.....	A. D. Woods, State Center
Mills.....	T. B. Lacey, Glenwood.....	I. U. Parsons, Malvern.....	D. W. Harman, Glenwood
Mitchell.....	G. E. Krepelka, Osage.....	J. O. Eiel, Osage.....	T. S. Walker, Riceville
Monona.....	E. J. Liska, Ute.....	E. E. Gingles, Onawa.....	C. W. Young, Onawa
Monroe.....	J. F. Stafford, Lovilia.....	T. A. Moran, Melrose.....	T. A. Moran, Melrose
Montgomery.....	L. R. Moriarty, Villisca.....	Helge Borre, Red Oak.....	Oscar Alden, Red Oak
Muscatine.....	L. C. Howe, Muscatine.....	J. L. Klein, Jr., Muscatine.....	T. F. Beveridge, Muscatine
O'Brien.....	C. A. Samuelson, Sheldon.....	W. S. Balkema, Sheldon.....	W. R. Brock, Sheldon
Osceola.....	H. B. Paulsen, Harris.....	W. F. Thayer, Ochevedan.....	Frank Reinsch, Ashton
Page.....	N. M. Johnson, Clarinda.....	J. F. Aldrich, Shenandoah.....	W. H. Maloy, Shenandoah
Palo Alto.....	J. P. McManus, Grætinger.....	P. O. Nelson, Emmetsburg.....	H. L. Brereton, Emmetsburg
Plymouth.....	M. J. Joynet, Le Mars.....	L. C. O'Toole, Le Mars.....	W. L. Downing, Le Mars
Pocahontas.....	W. F. Brinkman, Pocahontas.....	G. A. Everson, Rolfe.....	J. H. Howenden, Laurens
Polk.....	A. E. Merkel, Des Moines.....	E. W. Anderson, Des Moines.....	J. B. Synhorst, Des Moines
Pottawattamie.....	F. E. Marsh, Council Bluffs.....	G. V. Vaughan, Council Bluffs.....	G. N. Best, Council Bluffs
Poweshiek.....	H. C. Parsons, Grinnell.....	C. E. Harris, Grinnell.....	C. E. Harris, Grinnell
Ringgold.....	O. L. Fullerton, Redding.....	J. W. Hill, Mt. Ayr.....	E. J. Watson, Diagonal
Sac.....	A. A. Blum, Wall Lake.....	J. W. Gauger, Early.....	J. R. Dewey, Schaller
Scott.....	A. A. Garside, Davenport.....	L. J. Miltner, Davenport.....	A. P. Donohoe, Davenport
Shelby.....	J. P. McGowan, Harlan.....	A. L. Nielson, Harlan.....	A. L. Nielson, Harlan
Sioux.....	A. L. Lock, Rock Valley.....	Wm. Doornink, Orange City.....	Wm. Doornink, Orange City
Story.....	Julia Cole, Ames.....	W. B. Armstrong, Ames.....	Bush Houston, Nevada
Tama.....	G. T. McDowell, Gladbrook.....	G. M. Dalbey, Traer.....	A. A. Pace, Toledo
Taylor.....	C. E. Buckley, Blockton.....	J. H. Gasson, Bedford.....	G. W. Rimel, Bedford
Union.....	J. A. Liken, Creston.....	C. C. Rambo, Creston.....	C. C. Rambo, Creston
Van Buren.....	Roscoe Pollock, Douds-Leando.....	J. A. Craig, Keosauqua.....	L. A. Coffin, Farmington
Wapello.....	S. F. Singer, Ottumwa.....	L. A. Taylor, Ottumwa.....	E. B. Hoeven, Ottumwa
Warren.....	G. A. Jardine, New Virginia.....	C. H. Mitchell, Indianola.....	C. H. Mitchell, Indianola
Washington.....	W. L. Alcorn, Washington.....	W. S. Kyle, Washington.....	E. D. Miller, Wellman
Wayne.....	D. R. Ingraham, Sewal.....	C. F. Brubaker, Corydon.....	L. B. Calbreath, Humeston
Webster.....	T. J. Dorsey, Fort Dodge.....	P. C. Otto, Fort Dodge.....	H. E. Nelson, Dayton
Winnebuck.....	R. M. Dahlquist, Decorah.....	H. H. Ennis, Decorah.....	L. C. Kuhn, Decorah
Woodbury.....	C. A. Katherman, Sioux City.....	F. D. McCarthy, Sioux City.....	D. B. Blume, Sioux City
Worth.....	B. H. Osten, Northwood.....	M. P. Allison, Northwood.....	S. S. Westly, Manly
Wright.....	B. L. Basinger, Goldfield.....	J. R. Christensen, Eagle Grove.....	J. H. Sams, Clarion

Roster of Iowa Physicians in Military Service

As of March 24, 1945

Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) Capt., A.U.S.
Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.) Capt., A.U.S.

Adams County

Bain, C. L., Corning (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Willett, W. J., Carbon (APO 230, New York, N. Y.) Capt., A.U.S.

Allamakee County

Hogan, P. W., Waukon
Ivens, M. H., Waukon (Miami Beach, Fla.) Capt., A.U.S.
Kiesau, M. F., Postville (Jefferson Barracks, Mo.) Major, A.U.S.
Rominger, C. R., Waukon (Camp Claiborne, La.) A.U.S.

Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.) Major, U.S.P.H.S.
Edwards, R. R., Centerville (Richmond, Va.) Capt., A.U.S.
Huston, M. D., Centerville (Camp Bowie, Texas) Capt., A.U.S.

Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) Major, A.U.S.

Benton County

Koontz, L. W., Vinton (APO 7, San Francisco, Cal.) Capt., A.U.S.
Senfeld, Sidney, Belle Plaine

Black Hawk County

Bickley, D. W., Waterloo (APO New York, N. Y.) Capt., A.U.S.
Bickley, J. W., Waterloo (APO 956, San Francisco, Cal.) Capt., A.U.S.
Butts, J. H., Waterloo (Galveston, Texas) Comdr., U.S.N.R.
Cooper, C. N., Waterloo Lt. Comdr., U.S.N.R.
Ericsson, M. G., Cedar Falls (Camp Berkeley, Tex.) Capt., A.U.S.
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) Capt., A.U.S.
Henderson, L. J., Cedar Falls (APO 782, New York, N. Y.) Major, A.U.S.
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) Capt., A.U.S.
Ludwick, A. L., Waterloo (Abilene, Texas) Major, A.U.S.
Marquis, F. M., Waterloo (APO 513, New York, N. Y.) Capt., A.U.S.
O'Keefe, P. T., Waterloo (APO 79, New York, N. Y.) Capt., A.U.S.
Paige, R. T., LaPorte City (Banana River, Fla.) Comdr., U.S.N.R.
Rohlf, E. L., Jr., Waterloo (APO 230, New York, N. Y.) Major, A.U.S.
Seibert, C. W., Waterloo (Colorado Springs, Colo.) Major, A.U.S.
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) Major, A.U.S.
Smith, R. I., Waterloo (Milwaukee, Wis.) Capt., A.U.S.
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) Major, A.U.S.
Trunnell, T. L., Waterloo (Parris Island, S. Car.) Lt. U.S.N.R.

Boone County

Brewster, E. S., Boone (APO 446, New York, N. Y.) Major, A.U.S.
Healy, M. J., Boone (Fort Sill, Okla.) Capt., A.U.S.
Shane, R. S., Pilot Mound (Des Moines, Ia.) Lt. Col., A.U.S.

Bremer County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Rathe, H. W., Waverly (APO 209, New York, N. Y.) Lt. Col., A.U.S.
Shaw, R. E., Waverly (Long Beach, Cal.) 1st Lt., A.U.S.

Buchanan County

Barton, J. C., Independence (APO 314, New York, N. Y.) Lt. Col., A.U.S.
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Leehey, P. J., Independence (APO 244, San Francisco, Cal.) Capt., A.U.S.
Loeck, J. F., Aurora (APO 9787, New York, N. Y.) Capt., A.U.S.

Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) Capt., A.U.S.
Brecher, P. W., Storm Lake (Camp Adair, Ore.) Lt. Col., A.U.S.
Hansen, R. R., Storm Lake (Farragut, Idaho) Lt., U.S.N.R.
Mailliard, R. E., Storm Lake (APO 254, New York, N. Y.) Lt. Col., A.U.S.
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) Capt., A.U.S.
Witte, H. J., Marathon (APO 350, New York, N. Y.) Major, A.U.S.

Butler County

Andersen, B. V., Greene (San Diego, Cal.) Lt., U.S.N.R.
James, R. A., Allison (Mare Island, Cal.) 1st Lt., A.U.S.
Rofls, F. O., Parkersburg (Springfield, Mo.) 1st Lt., A.U.S.

Calhoun County

Grinley, A. V., Rockwell City (APO 350, New York, N. Y.) Capt., A.U.S.
Hobart, F. W., Lake City (Camp Grant, Ill.) Capt., A.U.S.
McVay, M. J., Lake City (Waco, Texas) Capt., A.U.S.

Peek, L. H., Lake City (Jefferson Barracks, Mo.) Capt., A.U.S.
Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
Weyer, J. J., Lohrville (APO 465, New York, N. Y.) Capt., A.U.S.

Carroll County

Anneberg, A. R., Carroll (Camp Berkeley, Texas) A.U.S.
Anneberg, W. A., Carroll (APO 367, New York, N. Y.) Capt., A.U.S.
Cochran, J. L., Carroll (Gulftport, Miss.) Lt., U.S.N.R.
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Freedland, Maurice, Coon Rapids
Morrison, J. R., Carroll (Ft. Dix, N. J.) Capt., A.U.S.
Morrison, R. B., Carroll (APO 634, New York, N. Y.) Capt., A.U.S.
Pascoe, P. L., Carroll (Bowman Field, Ky.) Capt., A.U.S.
Scannell, R. C., Carroll (Denver, Colo.) Capt., A.U.S.
Tindall, R. N., Coon Rapids (Hines, Ill.) Major, A.U.S.
Wyatt, M. R., Manning (Stuttgart, Ark.) Capt., A.U.S.

Cass County

Egbert, D. S., Atlantic (APO 218, New York N. Y.) Major, A.U.S.
Ergebright, W. V., Atlantic (APO 957, San Francisco, Cal.) Capt., A.U.S.
Needles, R. M., Atlantic (APO 131, New York, N. Y.) Capt., A.U.S.
Petersen, M. T., Atlantic (Topeka, Kan.) Capt., A.U.S.
Schiff, Joseph, Anita (Rochester, Minn.) 1st Lt., A.U.S.

Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.) Lt., U.S.N.R.
Mosher, M. L., West Branch (APO 560, New York, N. Y.) Capt., A.U.S.
O'Neal, H. E., Tipton (Minneapolis, Minn.) Lt. Col., A.U.S.

Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.) Major, A.U.S.
Egloff, W. C., Mason City (APO 17130, New York, N. Y.) Capt., A.U.S.
Flickinger, R. R., Mason City (Memphis, Tenn.) Capt., A.U.S.
Hale, A. E., Dougherty (Atlanta, Ga.) Capt., A.U.S.
Harris, R. H., Mason City (Dyersburg, Tenn.) Capt., A.U.S.
Harrison, G. E., Mason City (APO 365, New York, N. Y.) Col., A.U.S.
Houlahan, J. E., Mason City (APO 838, New Orleans, La.) Capt., A.U.S.
Lannon, J. W., Clear Lake (APO 230, New York, N. Y.) Capt., A.U.S.
Long, D. L., Mason City (APO 520, New York, N. Y.) Capt., A.U.S.
Morgan, P. W., Mason City (Camp Butner, N. Car.) Capt., A.U.S.
Sternhill, Irving, Mason City (Ayer, Mass.) Capt., A.U.S.

Cherokee County

Bullock, G. D., Washta (APO 17583, New York, N. Y.) Capt., A.U.S.
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) Major, A.U.S.
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) Capt., A.U.S.

Chickasaw County

Caulfield, J. D., New Hampton (APO 178, New York, N. Y.) Major, A.U.S.
Murphey, A. L., Fredericksburg (Ft. Leavenworth, Kan.) Capt., A.U.S.
O'Connor, E. C., New Hampton (Redmond, Ore.) Capt., A.U.S.
Richmond, P. C., New Hampton (APO 88, New York, N. Y.) Major, A.U.S.

Clarke County

Armitage, G. I., Murray (APO 629, New York, N. Y.) Capt., A.U.S.

Clay County

Edington, F. D., Spencer (APO 649, New York, N. Y.) Col., A.U.S.
Jones, C. C., Spencer (Farragut, Idaho) Lt., U.S.N.R.
King, D. H., Spencer (Peterson Field, Colo.) Capt., A.U.S.

Clayton County

Andersen, H. M., Strawberry Point (Camp Crowder, Mo.) Capt., A.U.S.
Glesne, O. G., Monona (Knoxville, Iowa) Capt., A.U.S.
Rhomberg, E. B., Guttenberg (APO 584, New York, N. Y.) Capt., A.U.S.

Clinton County

Amesbury, H. A., Clinton (Vancouver, Wash.) Major, A.U.S.
Burke, J. C., Clinton (Great Bend, Kan.) A.U.S.
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) Capt., A.U.S.
Hill, D. E., Clinton (APO 9787, New York, N. Y.) Capt., A.U.S.
King, R. C., Clinton (Clinton, Iowa) Capt., A.U.S.
Lenaghan, R. T., Clinton (Olathe, Kans.) Lt. Comdr., U.S.N.R.

Norment, J. E., Clinton (Washington, D. C.).....Lt. Comdr., U.S.N.R.
 Riedesel, E. V., Wheatland (Fort Douglas, Utah)
 Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.).....Capt., A.U.S.
 Snyder, D. C., De Witt (APO 620, New York, N. Y.).....Capt., A.U.S.
 Speigel, I. J., Clinton (Galesburg, Ill.).....Capt., A.U.S.
 Van Epps, E. F., Clinton (APO 9921, New York,
 N. Y.).....Capt., A.U.S.
 Waggoner, C. V., Clinton (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Wells, L. L., Clinton (APO 562, New York, N. Y.).....Capt., A.U.S.

Crawford County

Fee, C. H., Denison (APO 696, New York, N. Y.).....Major, A.U.S.
 Grau, A. H., Denison, (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Maire, E. J., Vail (APO 18085, New York, N. Y.).....Capt., A.U.S.
 Wetrich, M. F., Manilla (APO 986, Seattle, Wash.).....Capt., A.U.S.

Dallas-Guthrie Counties

Butterfield, E. T., Dallas Center (Fort Sheridan,
 Ill.).....1st Lt., A.U.S.
 Byrnes, A. W., Guthrie Center (Fort Custer, Mich.).....Major, A.U.S.
 Fail, C. S., Adel (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.
 Margolin, J. M., Perry (APO 5816, New York,
 N. Y.).....Capt., A.U.S.
 McGilvra, R. I., Guthrie Center (Ames, Iowa).....Lt., U.S.N.R.
 Mullmann, A. J., Adel (APO 565, San Francisco,
 Cal.).....Capt., A.U.S.
 Nicoll, C. A., Panora (APO 349, New York, N. Y.).....Major, A.U.S.
 Osborn, C. R., Dexter (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Todd, D. W., Guthrie Center (APO 2, New York,
 N. Y.).....Capt., A.U.S.
 Wilke, F. A., Woodward.....Capt., A.U.S.

Davis County

Fenton, C. D., Bloomfield (APO 5253, New York,
 N. Y.).....Capt., A.U.S.
 Gilfillan, G. W., Bloomfield (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Decatur County

Gamet, E. E., Lamoni (APO New York, N. Y.).....Capt., A.U.S.

Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York,
 N. Y.).....Capt., A.U.S.
 Clark, R. E., Manchester (APO 419, New York, N. Y.).....Capt., A.U.S.

Des Moines County

Eigenfeld, M. L., Burlington (Cleveland, Ohio).....1st Lt., A.U.S.
 Heitzman, P. O., Burlington (Fort Lewis, Wash.).....Capt., A.U.S.
 Jenkins, G. D., Burlington (West Point, N. Y.).....Lt. Col., A.U.S.
 Lohmann, C. J., Burlington (APO 702, San Francisco,
 Cal.).....Major, A.U.S.
 McKitterick, J. C., Burlington (Hamilton,
 R. I.).....Comdr., U.S.N.R.
 Moerke, R. F., Burlington (APO 565, San Francisco,
 Cal.).....Capt., A.U.S.
 Sage, E. C., Burlington (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Dickinson County

Buchanan, J. J., Milford (Santa Ana, Cal.).....Lt., U.S.N.R.
 Henning, G. G., Milford (APO 96, San Francisco,
 Cal.).....Major, A.U.S.
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.).....Capt., A.U.S.
 Rodawig, D. F., Spirit Lake (Topeka, Kan.).....Major, A.U.S.

Dubuque County

Anderson, E. E., Dubuque (Bradley Field, Conn.).....Capt., A.U.S.
 Beddoes, M. G., Cascade (APO 709, San Francisco,
 Cal.).....Capt., A.U.S.
 Conzett, D. C., Dubuque (APO 887, New York,
 N. Y.).....Lt. Col., A.U.S.
 Cunningham, J. C., Dubuque (Fairfield, Ohio).....Capt., A.U.S.
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.).....Major, A.U.S.
 Entringer, A. J., Dubuque (APO 41, San Francisco,
 Cal.).....Capt., A.U.S.
 Hall, C. B., Dubuque (Indiantown Gap, Pa.).....Capt., A.U.S.
 Knoll, A. H., Dubuque (San Francisco, Cal.).....Major, A.U.S.
 Langford, W. R., Epworth (Miami Beach, Fla.).....Capt., A.U.S.
 Lavery, H. B., Dubuque (Washington, D. C.).....Lt. Col., A.U.S.
 Leik, D. W., Dubuque (Wichita Falls, Tex.).....Capt., A.U.S.
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.).....Capt., A.U.S.
 Olson, P. F., Dubuque (Mare Island, Cal.).....Lt. Comdr., U.S.N.R.
 Painter, R. C., Dubuque (Salt Lake City, Utah).....Lt., U.S.N.R.
 Paulus, J. W., Dubuque (APO 115, New York,
 N. Y.).....Capt., A.U.S.
 Flankers, A. G., Dubuque (APO 363 New York,
 N. Y.).....Lt. Col., A.U.S.
 Quinn, E. P., Dubuque (Brooklyn, N. Y.).....Major, A.U.S.
 Scharle, Theodore, Dubuque (APO 17570, New York,
 N. Y.).....Capt., A.U.S.
 Schueller, C. J., Dubuque (APO 768, New York,
 N. Y.).....1st Lt., A.U.S.
 Sharpe, D. C., Dubuque (APO 5541, New York,
 N. Y.).....Major, A.U.S.
 Smith, C. W., Dubuque (Shoemaker, Cal.).....Lt. U.S.N.R.
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.).....Lt. Col., A.U.S.
 Straub, J. J., Dubuque (Bethesda, Md.).....Lt. Comdr., U.S.N.R.
 Ward, D. F., Dubuque (Great Lakes, Ill.).....Lt. Comdr., U.S.N.R.

Emmet County

Clark, J. P., Estherville (APO New York, N. Y.).....Capt., A.U.S.
 Collins, L. E., Estherville (APO 247, San Francisco,
 Cal.).....1st Lt., A.U.S.
 Miller, O. H., Estherville (Seattle, Wash.).....Lt. Comdr., U.S.N.R.

Fayette County

Gallagher, J. P., Oelwein (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Henderson, W. B., Oelwein (St. Louis, Mo.).....Lt. Col., A.U.S.
 Sulzbach, J. F., Oelwein
 Walsh, W. E., Hawkeye (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Floyd County

Baltzell, W. C., Charles City (APO 2, New York,
 N. Y.).....Major, A.U.S.
 Flater, N. C., Floyd (APO 350, New York, N. Y.).....Capt., A.U.S.
 Knight, R. A., Rockford (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Mackie, D. G., Charles City (APO 215, New York,
 N. Y.).....Capt., A.U.S.
 Miner, J. B., Jr., Charles City (San Diego, Cal.).....Lt., U.S.N.R.
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.).....Capt., A.U.S.

Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) 1st Lt., A.U.S.
 Hedgecock, L. E., Hampton (Camp Lejeune,
 N. Car.).....Lt. Comdr., U.S.N.R.
 Randall, W. L., Hampton (Oceanside, Cal.).....Lt., U.S.N.R.
 Walton, S. G., Hampton (APO New York, N. Y.).....Capt., A.U.S.

Fremont County

Kerr, W. H., Hamburg (APO 926, San Francisco,
 Cal.).....Capt., A.U.S.
 Marrs, W. D., Tabor (Ardmore, Okla.).....Capt., A.U.S.
 Powell, R. A., Farragut (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Wanamaker, A. R., Hamburg (APO 939, Seattle,
 Wash.).....Capt., A.U.S.

Greene County

Cartwright, F. P., Grand Junction (APO 511, New York,
 N. Y.).....Capt., A.U.S.
 Castles, W. A., Rippey (APO 958, San Francisco, Cal.)
 Hanson, L. C., Jefferson (APO 728, New York, N. Y.).....Major, A.U.S.
 Jongewaard, A. J., Jefferson (Fleet PO, San
 Francisco, Cal.).....Lt. Comdr., U.S.N.R.

Limburg, J. I., Jr., Jefferson (APO 927, San Francisco,
 Cal.).....Major, A.U.S.
 Lohr, P. E., Churdan (Hastings, Nebr.).....Lt., U.S.N.R.

Grundy County

Cullison, R. M., Dike (Fort Howard, Md.).....Major, A.U.S.
 Rose, J. E., Grundy Center (Fleet PO, New York,
 N. Y.).....Lt. Comdr., U.S.N.R.

Hamilton County

*Buxton O. C., Webster City (APO 9921, New York,
 N. Y.).....1st Lt., A.U.S.
 Howar, B. F., Jewell (APO 514, New York, N. Y.).....Major, A.U.S.
 James, D. W., Kamrar (APO 370, New York, N. Y.).....Capt., A.U.S.

Lewis, W. B., Webster City (APO 353, New York,
 N. Y.).....Major, A.U.S.
 Mooney, F. P., Jewell (London, England).....Capt., R.A.M.C.
 Paschal, G. A., Williams (Camp Crowder, Mo.).....Capt., A.U.S.
 Patterson, R. A., Webster City (San Diego,
 Cal.).....Lt. Comdr., U.S.N.R.
 Ptacek, J. L., Webster City (APO 12845 G, New York,
 N. Y.).....Capt., A.U.S.
 Schrader, M. A., Webster City (Topeka, Kan.).....1st Lt., A.U.S.
 Thompson, E. D., Webster City (Biloxi, Miss.).....Capt., A.U.S.

Hancock-Winnebag Counties

Dolmage, G. H., Buffalo Center (Denver, Colo.).....Capt., A.U.S.
 Dulmes, A. H., Klemme (APO 782, New York,
 N. Y.).....Capt., A.U.S.
 Eller, L. W., Kanawha (APO 302, New York,
 N. Y.).....Capt., A.U.S.
 Irish, T. J., Forest City (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Shaw, D. F., Britt (Delhart, Tex.).....Major, A.U.S.
 Thomas, C. W., Forest City (Camp Crowder, Mo.).....Capt., A.U.S.

Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.).....Lt., U.S.N.R.
 Houlihan, F. W., Ackley (APO 860, New York,
 N. Y.).....1st Lt., A.U.S.
 Jansonius, J. W., Eldora (APO 4834, New York,
 N. Y.).....Capt., A.U.S.
 Johnson, R. J., Iowa Falls (APO 514, New York,
 N. Y.).....Capt., A.U.S.
 Johnson, W. A., Alden (Orlando, Fla.).....Capt., A.U.S.
 Shurts, J. J., Eldora (Camp Roberts, Cal.).....1st Lt., A.U.S.
 Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Todd, V. S., Eldora (APO 70, San Francisco, Cal.).....Capt., A.U.S.

Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Ord, Cal.).....Capt., A.U.S.
 Burbridge, G. E., Logan (APO 511, New York,
 N. Y.).....Major, A.U.S.
 Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.).....Capt., A.U.S.
 Heise, C. A., Jr., Missouri Valley (Fleet PO, San
 Francisco, Cal.).....Lt., U.S.N.R.
 Tamsiea, F. X., Missouri Valley (APO 562, New York,
 N. Y.).....Capt., A.U.S.

Henry County

Brown, W. B., Mount Pleasant (APO 571, New York,
 N. Y.).....Major, A.U.S.

Dwankowski, Carl, Mt. Pleasant (APO 511,
New York, N. Y.).....Capt., A.U.S.
Gloeckler, B. B., Mount Pleasant (APO 9768, New York,
N. Y.).....Capt., A.U.S.
Hartley, B. D., Mount Pleasant (APO 17130, New
York, N. Y.).....Capt., A.U.S.
Megorden, W. H., Mount Pleasant (Ogden, Utah).....Capt., A.U.S.
Ristine, L. P., Mount Pleasant (APO 9648, New York,
N. Y.).....Major, A.U.S.

Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco,
Cal.).....Lt. U.S.N.R.
Nierling, P. A., Cresco (APO 43, San Francisco,
Cal.).....Capt., A.U.S.

Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.).....Capt., A.U.S.
Coddington, J. H., Humboldt (Oklahoma City, Okla.).....Capt., A.U.S.

Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Fran-
cisco, Cal.).....Capt., A.U.S.
Martin, J. W., Holstein (Albany, Ga.).....Capt., A.U.S.

Iowa County

Geiger, U. S., North English (San Diego,
Cal.).....Lt. Comdr., U.S.N.R.
McDaniel, J. D., Marengo (Fort Ord, Cal.).....Capt., A.U.S.
Miller, D. F., Williamsburg (Fleet PO, San Fran-
cisco, Cal.).....Lt. U.S.N.R.

Jackson County

Bausch, R. G., Bellevue (APO 251, New York,
N. Y.).....Capt., A.U.S.
Skelley, P. B., Jr., Maquoketa (Ft. Lewis, Wash.).....1st Lt., A.U.S.
Swift, F. J., Jr., Maquoketa (APO 652, New York,
N. Y.).....Major, A.U.S.

Jasper County

Doake, Clarke, Newton.....1st Lt., A.U.S.
Minkel, R. M., Newton (APO New York,
N. Y.).....Lt. Col., A.U.S.
Ritchey, S. J., Newton.....Lt. Col., A.U.S.

Jefferson County

Castell, J. W., Fairfield (APO 9907, New York,
N. Y.).....Capt., A.U.S.
Frey, Harry, Fairfield (Norfolk, Va.).....Lt. Comdr., U.S.N.R.
Gittler, Ludwig, Fairfield.....Lt. Col., A.U.S.
Graber, H. E., Fairfield (Camp Cooke, Cal.).....Major, A.U.S.
Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

Johnson County

Agnew, J. W., Iowa City (APO 17604, New York
N. Y.).....Capt., A.U.S.
Albert, S. M., Iowa City (APO 9622, New York,
N. Y.).....1st Lt., A.U.S.
Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.
Anderson, E. N., Iowa City (APO 647, New York,
N. Y.).....Major, A.U.S.
Boyd, E. J., Iowa City (APO 140, New York, N. Y.).....Capt., A.U.S.
Brinkhous, K. M., Iowa City (APO 4672, San Francisco,
Cal.).....Lt. Col., A.U.S.
Bunge, R. G., Iowa City (Biloxi, Miss.).....1st Lt., A.U.S.
Callahan, G. D., Iowa City (Fleet PO, San Francisco,
Cal.).....Lt. U.S.N.R.
Coburn, F. E., Iowa City (Toronto, Canada).....Capt., R.C.A.
Cooper, W. K., Iowa City (Mitchell Field, N. Y.).....Capt., A.U.S.
Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.).....Capt., A.U.S.
Diddle, A. W., Iowa City (Fleet PO, San Francisco,
Cal.).....Lt. U.S.N.R.
Dorner, R. A., Iowa City (APO 230, New York,
N. Y.).....Capt., A.U.S.
Elmquist, H. S., Iowa City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
Emmons, M. B., Iowa City (Ablene, Texas).....Capt., A.U.S.
Flax, Ellis, Iowa City (APO 5833, New York, N. Y.).....1st Lt., A.U.S.
Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.
Fourt, A. S., Iowa City (APO 34, New York,
N. Y.).....Lt. Col., A.U.S.
Francis, N. L., Iowa City (Annapolis, Md.).....Lt. (jg), U.S.N.R.
Galinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.
Garlinghouse, R. O., Iowa City (Ft. Riley, Kan.).....Lt. Col., A.U.S.
Hardin, R. C., Iowa City (APO 508, New York,
N. Y.).....Major, A.U.S.
Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.
Hessin, A. L., Iowa City (APO 452, New York,
N. Y.).....Major, A.U.S.
Irwin, R. L., Iowa City (Fleet PO, San Francisco,
Cal.).....Comdr., U.S.N.R.
January, L. E., Iowa City (Pyote, Texas).....Major, A.U.S.
Kanealy, J. F., Iowa City (APO 928, San Francisco,
Cal.).....1st Lt., A.U.S.
Keislar, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.
Lage, R. H., Iowa City (Fleet PO, San Francisco,
Cal.).....Lt. U.S.N.R.
Laubscher, J. H., Iowa City (Ft. Benning, Ga.).....1st Lt., A.U.S.
Longwell, F. H., Iowa City (Daytona, Fla.).....Major, A.U.S.
Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.
Nagyfi, S. F., Iowa City (Fleet PO, New York,
N. Y.).....Lt. U.S.N.R.
Newman, R. W., Iowa City (Fleet PO, New York,
N. Y.).....Lt. U.S.N.R.
Parkin, G. L., Iowa City (Mountain Home, Idaho).....1st Lt., A.U.S.
Paulus, E. W., Iowa City (APO 34, New York,
N. Y.).....Lt. Col., A.U.S.
Petersen, V. W., Iowa City (APO 689, New York,
N. Y.).....Col., A.U.S.
Sells, R. L., Jr., Iowa City (Palmdale, Cal.).....Capt., A.U.S.
Smith, H. F., Iowa City (New York, N. Y.).....Lt. Comdr., U.S.N.R.
Springer, E. W., Iowa City (APO 678, New York,
N. Y.).....Capt., A.U.S.

Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.
Staggs, W. A., Iowa City (Camp Robinson, Ark.).....Major, A.U.S.
Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.
Stump, R. B., Iowa City (Denver, Colo.).....Capt., A.U.S.
Titus, E. L., Iowa City (Belmont, Mass.).....Col., A.U.S.
Trapasso, T. J., Iowa City (APO 520, New York,
N. Y.).....Capt., A.U.S.
Trussell, R. E., Iowa City (APO 5467, San Francisco,
Cal.).....Capt., A.U.S.
Vest, W. M., Iowa City (Menlo Park, Cal.).....Capt., A.U.S.
Ward, R. H., Iowa City (Fleet PO, San Francisco,
Cal.).....Lt. Comdr., U.S.N.R.
Weatherly, H. E., Iowa City (APO 72, San Francisco,
Cal.).....Capt., A.U.S.
Wollmann, W. W., Iowa City (Staunton, Va.).....1st Lt., A.U.S.
Ziffren, S. E., Iowa City (Springfield, Mo.).....1st Lt., A.U.S.

Junior Members

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.
Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.
Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.
Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.
Black, N. M., Iowa City (McChord Field, Wash.).....1st Lt., A.U.S.
Blair, J. D., Iowa City (APO San Francisco, Cal.).....Major, A.U.S.
Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.
Brintnall, E. S., Iowa City (Colorado Springs,
Colo.).....1st Lt., A.U.S.
Burr, S. P., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.
Carney, R. G., Iowa City (Fleet PO, San Francisco,
Cal.).....Lt. U.S.N.R.
Connole, J. F., Iowa City (Camp Bowie, Texas).....1st Lt., A.U.S.
Couch, O. A., Iowa City (Camp Van Dorn, Miss.).....1st Lt., A.U.S.
Coulson, F. H., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
Decker, C. E., Iowa City (Oklahoma City, Okla.).....1st Lt., A.U.S.
Donnelly, B. A., Iowa City (APO San Francisco,
Cal.).....1st Lt., A.U.S.
Ehrenhaft, J. L., Iowa City (APO New York,
N. Y.).....1st Lt., A.U.S.
Englerth, F. L., Iowa City (APO San Francisco,
Cal.).....Capt., A.U.S.
Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.
Glassman, A. L., Iowa City (Palm Springs, Cal.).....1st Lt., A.U.S.
Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.
Harms, G. E., Iowa City (Carlisle Barracks,
Penn.).....1st Lt., A.U.S.
Hendricks, A. R., Iowa City (Klamath Falls, Ore.).....Lt., U.S.N.
Hovis, Wm., Iowa City (Fleet PO, San Francisco,
Cal.).....Lt. (jg), U.S.N.R.
Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.
Jacobs, C. A., Iowa City (APO New York, N. Y.).....Major, A.U.S.
Kaplan, Nathan, Iowa City (Carlisle Bar-
racks, Pa.).....1st Lt., A.U.S.
Keil, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.
Kelberg, M. R., Iowa City (Alameda, Cal.).....Lt., U.S.N.R.
Keleher, M. F., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.
Keohen, G. F., Iowa City (Camp Grant, Ill.).....Capt., A.U.S.
Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.
Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.
McCann, J. P., Iowa City (Carlisle Barracks,
Penn.).....1st Lt., A.U.S.
McQuiston, W. O., Iowa City (APO San Francisco,
Cal.).....Capt., A.U.S.
Moen, B. H., Iowa City.....A.U.S.
Moon, R. E., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.
Odell, Lester, Iowa City (Pensacola, Fla.).....Lt. (jg), U.S.N.R.
Phillips, R. M., Iowa City (San Francisco, Cal.).....1st Lt., A.U.S.
Pulliam, R. L., Iowa City (APO 350, New York,
N. Y.).....Major, A.U.S.
Randall, C. G., Iowa City.....A.U.S.
Randall, R. G., Iowa City (Waterloo, Iowa).....Capt., A.U.S.
Rosenbusch, M., Iowa City (Fort Leonard Wood,
Mo.).....1st Lt., A.U.S.
Russin, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.
Saar, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.
Schwilde, J. T., Iowa City (Carlisle Barracks,
Penn.).....1st Lt., A.U.S.
Shand, J. A., Iowa City (Carlisle Barracks,
Penn.).....1st Lt., A.U.S.
Shapiro, S. I., Iowa City.....A.U.S.
Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.
Skewis, J. E., Iowa City (Corona, Cal.).....Lt., U.S.N.R.
Skouge, O. T., Iowa City.....A.U.S.
Towle, R. A., Iowa City (Fleet PO, San Francisco,
Cal.).....Lt. Comdr., U.S.N.R.
Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.
Watters, V. G., Iowa City (Fort Leonard Wood,
Mo.).....1st Lt., A.U.S.
Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.
Williams, L. A., Iowa City (Treasure Island, Cal.).....1st Lt., A.U.S.
Willumsen, H. C., Iowa City (Denver, Colo.).....Capt., A.U.S.
Volkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.
Yetter, W. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
Zahrt, N. E., Iowa City (Keesler Field, Miss.).....Capt., A.U.S.
Zimmerman, H. A., Iowa City (Santa Ana, Cal.).....1st Lt., A.U.S.

Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.).....Capt., A.U.S.
Doyle, J. L., Sigourney (Camp Barkeley, Texas).....A.U.S.
Engelmann, A. T., What Cheer (Camp Polk, La.).....Capt., A.U.S.
Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.
Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.
Wiley, Dudley, Hedrick (Mason City, Wash.).....A.U.S.

Kossuth County

Clapsaddle, D. W., Burt (Denver, Colo.).....Capt., A.U.S.
Corbin, R. L., Luverne (Des Moines, Iowa).....Capt., A.U.S.

Kenefick, J. N., Algonia (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Williams, R. L., Lakota (Iowa City, Iowa) Lt. Comdr., U.S.N.R.

Lee County

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.
Cleary, H. G., Fort Madison (Ft. Benning, Ga.) Capt., A.U.S.
Cooper, R. E., Keokuk (APO 565, San Francisco, Cal.) Capt., A.U.S.
Johnstone, A. A., Keokuk (APO 942, Seattle, Wash.) Col., A.U.S.
McKee, T. L., Keokuk (Miami Beach, Fla.) Major, A.U.S.
Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) Major, A.U.S.
Rankin, J. R., Keokuk (Memphis, Tenn.) Lt., U.S.N.R.
Richmond, A. C., Fort Madison (Treasure Island, Cal.) Lt. Comdr., U.S.N.R.
Steffey, F. L., Keokuk (Fort Snelling, Minn.) Capt., A.U.S.
Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.) Capt., A.U.S.
Younan, Thomas, Ft. Madison (APO 464, New York, N. Y.) Capt., A.U.S.

Linn County

Andre, G. R., Lisbon (APO 90, New York, N. Y.) Lt. Col., A.U.S.
Berney, P. W., Cedar Rapids (APO 207, New York, N. Y.) Capt., A.U.S.
Block, W. M., Cedar Rapids (APO 926, San Francisco, Cal.) Capt., A.U.S.
Chapman, R. M., Cedar Rapids (Chicago, Ill.) Capt., A.U.S.
Coughlan, V. H., Coggon (Fort Snelling, Minn.) A.U.S.
Courtier, W. O., Springville (APO 464, New York, N. Y.) Major, A.U.S.
Downing, J. S., Cedar Rapids (APO 565, San Francisco, Cal.) Lt. Col., A.U.S.
Dunn, F. C., Cedar Rapids (Winfield, Kan.) Major, A.U.S.
Gearhart, Merriam, Springville (APO 204, New York, N. Y.) Major, A.U.S.
Gerstman, Herbert, Marion (APO 862, New York, N. Y.) Capt., A.U.S.
Halpin, L. J., Cedar Rapids (APO 957, San Francisco, Cal.) Major, A.U.S.
Hecker, J. T., Cedar Rapids (Camp Bowie, Texas) Capt., A.U.S.
Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.) Lt. Col., A.U.S.
Keith, J. J., Marion (Menlo Park, Cal.) Major, A.U.S.
Kieck, E. G., Cedar Rapids (San Diego, Cal.) Lt. Comdr., U.S.N.R.
Kruckenberg, W. G., Mount Vernon (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Leedham, C. L., Springville (Camp Campbell, Ky.) Col., A.U.S.
Locher, R. C., Cedar Rapids (APO 18085, New York, N. Y.) Major, A.U.S.
Locher, R. C., Cedar Rapids (Camp Gruber, Okla.) Major, A.U.S.
†MacDougal, R. F., Cedar Rapids (APO 9057, New York, N. Y.) Capt., A.U.S.
McConkie, E. B., Cedar Rapids (Hines, Ill.) Major, A.U.S.
McQuiston, J. S., Cedar Rapids (Fort Warren, Wyo.) Lt. Col., A.U.S.
Meffert, C. B., Cedar Rapids (APO 403, New York, N. Y.) Lt. Col., A.U.S.
Murray, E. S., Cedar Rapids (APO 787, New York, N. Y.) Lt. Col., A.U.S.
Netolicky, R. Y., Cedar Rapids (Hawthorne, Nev.) Lt. Comdr., U.S.N.R.
Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.) 1st Lt., A.U.S.
Noe, C. A., Cedar Rapids (Hot Springs, Ark.) Major, A.U.S.
Parke, John, Cedar Rapids Major, A.U.S.
Proctor, R. D., Cedar Rapids (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) Major, A.U.S.
Rieniets, J. H., Cedar Rapids, (Charleston, S. Car.) Lt. Comdr., U.S.N.R.
Sedlacek, L. B., Cedar Rapids (APO 244, San Francisco, Cal.) Lt. Col., A.U.S.
Smrha, J. A., Cedar Rapids (Topeka, Kan.) Capt., A.U.S.
Stansbury, J. R., Cedar Rapids (Fort Lewis, Wash.) Capt., A.U.S.
Stark, C. H., Cedar Rapids (Denver, Colo.) Capt., A.U.S.
Sulek, A. E., Cedar Rapids (APO 244, San Francisco, Cal.) Major, A.U.S.
Woodhouse, K. W., Cedar Rapids (APO 519, New York, N. Y.) Lt. Col., A.U.S.
Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) Major, A.U.S.
Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.) Lt. Comdr., U.S.N.

Louisa County

DeYarman, K. T., Morning Sun (San Antonio, Texas) Capt., A.U.S.
Tandy, R. W., Morning Sun (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Lucas County

Lister, K. E., Chariton (Fort Snelling, Minn.) A.U.S.

Lyon County

Cook, S. H., Rock Rapids (Lordsburg, N. Mex.) Major, A.U.S.
†Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Ofag 64, Germany) Capt., A.U.S.
Moriarty, J. F., Rock Rapids (APO 464, New York, N. Y.) Capt., A.U.S.

Madison County

Boden, H. N., Truro (Fresno, Cal.) Capt., A.U.S.
Chesnut, P. F., Winterset (Camp Gruber, Okla.) Capt., A.U.S.
Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) Capt., A.U.S.

Wicks, R. L., Winterset (APO 204, New York, N. Y.) Lt. Col., A.U.S.

Mahaska County

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.) Major, A.U.S.
Bos, H. C., Oskaloosa (APO 758, New York, N. Y.) Major, A.U.S.
Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Clark, G. H., Oskaloosa (Mare Island, Cal.) Lt. Comdr., U.S.N.R.
Gillett, R. M., Oskaloosa (Fleet PO, San Francisco, Cal.) Capt., U.S.N.
Greenlee, M. R., Oskaloosa (Port Hueneme, Cal.) Lt. Comdr., U.S.N.R.
Hibbs, R. E., Oskaloosa Capt., A.U.S.
Keohen, G. P., Oskaloosa (Washington, D. C.) Major, A.U.S.
Lemon, K. M., Oskaloosa (APO 637, New York, N. Y.) Capt., A.U.S.
Reiley, R. E., Oskaloosa (APO 502, San Francisco, Cal.) Major, A.U.S.
Shurts, J. J., Oskaloosa (Fort Mason, Cal.) Capt., A.U.S.
Zager, L. L., Oskaloosa (APO 436, New York, N. Y.) Capt., A.U.S.

Marion County

Elliott, V. J., Knoxville (APO 558, New York, N. Y.) Major, A.U.S.
Mater, D. A., Knoxville (Lincoln, Neb.) Major, A.U.S.
Ralston, F. P., Knoxville (Indio, Cal.) Capt., A.U.S.
Schiek, C. M., Knoxville Lt. Comdr., U.S.N.R.
Schroeder, M. C., Pella (Camp Livingston, La.) Capt., A.U.S.
Williams, D. B., Knoxville Capt., A.U.S.

Marshall County

Carpenter, R. C., Marshalltown (APO 678 New York, N. Y.) Capt., A.U.S.
Marble, E. J., Marshalltown (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Marble, W. P., Marshalltown (Colorado Springs, Colo.) Major, A.U.S.
Meyer, M. G., Marshalltown (APO 513, New York, N. Y.) Major, A.U.S.
Noonan, J. J., Marshalltown (Fort Jackson, S. Car.) Lt. Col., A.U.S.
Phelps, R. E., State Center (APO 7, San Francisco, Cal.) Capt., A.U.S.
Sinning, J. E., Melbourne (Rochester, Minn.) Capt., A.U.S.
Smith, E. M., State Center (APO 520, New York, N. Y.) Lt. Col., A.U.S.
Stegman, J. J., Marshalltown (APO 520, New York, N. Y.) Major, A.U.S.
Wells, R. C., Marshalltown (Gowen Field, Idaho) Capt., A.U.S.
Wolfe, O. D., Marshalltown (APO 937, Seattle Wash.) Capt., A.U.S.
Wolfe, R. M., Marshalltown (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.

Mills County

DeYoung, W. A., Glenwood (APO 228, New York, N. Y.) Capt., A.U.S.
Kuitert, J. H., Glenwood (St. Cloud, Minn.) Major, A.U.S.
Magaret, E. C., Glenwood (APO 973, Minneapolis, Minn.) Capt., A.U.S.
Shonka, T. E., Malvern (APO 403, New York, N. Y.) Capt., A.U.S.

Mitchell County

Culbertson, R. A., St. Ansgar (APO 331, San Francisco, Cal.) Lt. Col., A.U.S.
Moore, E. E., Osage (APO 591, New York, N. Y.) Major, A.U.S.
Owen, W. E., Osage (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
Walker, T. G., Riceville (Fleet PO, New York, N. Y.) Lt., U.S.N.R.

Monona County

Almer, L. E., Moorhead (Fort Knox, Ky.) Capt., A.U.S.
Anderson, S. N., Onawa (Great Lakes, Ill.) Lt., U.S.N.R.
Ganzhorn, H. L., Mapleton (APO 72, San Francisco, Cal.) Capt., A.U.S.
Gaukel, L. A., Onawa (Fort Riley, Kan.) Capt., A.U.S.
†Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
Stauch, M. O., Whiting (Fort Lewis, Wash.) Major, A.U.S.
Wainwright, M. T., Mapleton (Hines, Ill.) Capt., A.U.S.
Wolpert, P. L., Onawa (Camp Atterbury, Ind.) Capt., A.U.S.

Monroe County

Gilliland, C. H., Albia (Fleet PO, San Francisco, Cal.) Lt., U.S.N.
Heimann, V. R., Albia (Camp Maxey, Texas) Capt., A.U.S.
Richter, H. J., Albia (Waco, Texas) Major, A.U.S.
Smith, R. A., Albia (New Cumberland, Pa.) Capt., A.U.S.

Montgomery County

Bastron, H. C., Red Oak (APO 951, San Francisco, Cal.) Major, A.U.S.
Hansen, F. A., Red Oak (Clarksville, Ark.) Lt., U.S.N.R.
Nelson, C. C., Red Oak (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Panzer, E. J. C., Stanton (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
Rost, G. S., Red Oak (Halstead, Kan.) Capt., A.U.S.
Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) Capt., A.U.S.

Muscatine County

Ady, A. E., West Liberty (Pensacola, Fla.) Comdr., U.S.N.R.
†Ashalter, R. W., Muscatine (Fort Meade, Md.) 1st Lt., A.U.S.
Carlson, E. H., Muscatine (Camp Ellis, Ill.) Capt., A.U.S.
Goad, R. R., Muscatine (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.

Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) Major, A.U.S.
 Lindley, E. L., Muscatine (APO 6, San Francisco, Cal.) Capt., A.U.S.
 Muhs, E. O., Muscatine (APO 678, New York, N. Y.) Major, A.U.S.
 Norem, Walter, Muscatine (APO, Miami, Fla.) Capt., A.U.S.
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.) Capt., A.U.S.
 Sywassink, G. A., Muscatine (APO 488-"Y" Forces, New York, N. Y.) Lt. Col., A.U.S.
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.) Lt. Col., A.U.S.

O'Brien County

Getty, E. B., Primghar (APO 739, New York, N. Y.) Capt., A.U.S.
 Hayne, W. W., Paulina (APO 638, New York, N. Y.) Capt., A.U.S.
 Moen, S. T., Hartley (APO 689, New York, N. Y.) Lt. Col., A.U.S.
 Myers, K. W., Sheldon (APO 559, New York, N. Y.) Capt., A.U.S.

Osceola County

Kuntz, G. S., Sibley (APO 34, New York, N. Y.) Capt., A.U.S.

Page County

Barnes, C. A., Shenandoah (APO New York, N. Y.) Capt., A.U.S.
 Bauer, Frank, Shenandoah (APO New York, N. Y.) A.U.S.
 Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.) Capt., A.U.S.
 Bossingham, E. N., Clarinda (Fort Ord, Cal.) Major, A.U.S.
 Brush, Frederick, Shenandoah (APO New York, N. Y.) A.U.S.
 Bunch, H. McK., Shenandoah (San Diego, Cal.) Lt. Comdr., U.S.N.R.
 Burdick, F. D., Shenandoah (Denver, Colo.) Capt., A.U.S.
 Burnett, F. K., Clarinda (APO 11336, New York, N. Y.) Major, A.U.S.
 Rausch, G. R., Clarinda (Sioux City, Iowa) Capt., A.U.S.
 Savage, L. W., Shenandoah (Fort Meade, Md.) 1st Lt., A.U.S.
 Schwidde, Tiford, Shenandoah (APO New York, N. Y.) A.U.S.

Palo Alto County

Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.

Plymouth County

Bowers, C. V., LeMars (APO New York, N. Y.) 1st Lt., A.U.S.
 Fisch, R. J., LeMars (Denver, Colo.) Capt., A.U.S.
 Foss, R. H., Remsen (Homestead, Fla.) Capt., A.U.S.
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.) Capt., A.U.S.

Pocahontas County

Blair, F. L., Jr., Fonda (San Antonio, Texas) Lt., U.S.N.R.
 Herrick, T. G., Gilmore City (APO 9875, New York, N. Y.) Capt., A.U.S.
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.) Capt., A.U.S.
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.) Capt., A.U.S.
 Patterson, A. W., Fonda (Des Moines, Iowa) Capt., A.U.S.

Polk County

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Anderson, N. B., Des Moines (APO 667, New York, N. Y.) Lt. Col., A.U.S.
 Angell, C. A., Des Moines (Ft. Bragg, N. Car.) Capt., A.U.S.
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.) Lt. Col., A.U.S.
 Barnes, B. C., Des Moines (APO 4294, San Francisco, Cal.) Major, A.U.S.
 Bates, M. T., Des Moines (Corona, Cal.) Lt. Comdr., U.S.N.R.
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Bond, T. A., Des Moines (Shoemaker, Cal.) Lt., U.S.N.R.
 Bone, H. C., Des Moines (Arlington, Cal.) Major, A.U.S.
 Brown, A. W., Des Moines (APO 5934, New York, N. Y.) Capt., A.U.S.
 Bruner, J. M., Des Moines (Camp Barkeley, Texas) Major, A.U.S.
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Burgess, F. M., Des Moines Capt., A.U.S.
 Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada) Flight Lt., R.C.A.F.
 Chambers, J. W., Des Moines (APO 667, New York, N. Y.) Capt., A.U.S.
 Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.) Capt., A.U.S.
 Connell, J. R., Des Moines (APO 507, New York, N. Y.) Major, A.U.S.
 Corn, H. H., Des Moines (Camp Beale, Cal.) Capt., A.U.S.
 Coughlan, D. W., Des Moines (APO 689, New York, N. Y.) Capt., A.U.S.
 Crowley, D. F., Jr., Des Moines (Presque Isle, Me.) Capt., A.U.S.
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.) Capt., A.U.S.
 DeCicco, Ralph, Des Moines (APO 952, San Francisco, Cal.) Capt., A.U.S.
 Decker, H. G., Des Moines (Long Beach, Cal.) Lt. Comdr., U.S.N.R.
 Downing, A. H., Des Moines (Ft. Snelling, Minn.) 1st Lt., A.U.S.
 Dushkin, M. A., Des Moines (APO 689, New York, N. Y.) Lt. Col., A.U.S.
 Elliott, O. A., Des Moines (Pecos, Texas) Capt., A.U.S.
 Ellis, H. G., Des Moines (APO 710, San Francisco, Cal.) Capt., A.U.S.

Ervin, L. J., Des Moines (Victoria, Texas) Lt. Col., A.U.S.
 Fleck, W. L., Des Moines (Ft. Howard, Md.) Lt. Col., A.U.S.
 Fried, David, Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Fracasse, John, Des Moines 1st Lt., A.U.S.
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Gerchek, E. W., Des Moines
 Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.) Major, A.U.S.
 Glomset, D. A., Des Moines (APO 9826 New York, N. Y.) Capt., A.U.S.
 Goldberg, Louie, Des Moines (APO 926, San Francisco, Cal.) Capt., A.U.S.
 Gordon, A. M., Des Moines (APO 600, New York, N. Y.) Capt., A.U.S.
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Greek, L. M., Des Moines (APO 512, New York, N. Y.) Capt., A.U.S.
 Gurau, H. H., Des Moines (Malden, Mo.) Capt., A.U.S.
 Haines, D. J., Des Moines (APO 453, San Francisco, Cal.) Capt., A.U.S.
 Harris, D. D., Des Moines (Gulfport, Miss.) Lt. Comdr., U.S.N.R.
 Harris, H. L., Des Moines (Salina, Kan.) 1st Lt., A.U.S.
 Hess, John, Jr., Des Moines 1st Lt., A.U.S.
 James, A. D., Des Moines (Fort Eustis, Va.) Comdr., U.S.N.R.
 Johnston, C. H., Des Moines (Randolph Field, Texas) Lt. Col., A.U.S.
 Kast, D. H., Des Moines (Fort Stevens, Ore.) Capt., A.U.S.
 Kelley, E. J., Des Moines (Columbus, Ohio) Lt. Comdr., U.S.N.R.
 Kirch, W. A. W., Des Moines (Astoria, Ore.) Lt. Comdr., U.S.N.R.
 Klocksiehm, H. L., Des Moines (APO New York, N. Y.) Capt., A.U.S.
 Kottke, E. E., Des Moines (Temple, Texas) Capt., A.U.S.
 Landis, S. N., Des Moines (West Palm Beach, Fla.) 1st Lt., A.U.S.
 La Tona, Salvatore, Des Moines 1st Lt., A.U.S.
 Lederman, James, Des Moines 1st Lt., R.C.A.
 Lehman, E. W., Des Moines (APO 711, San Francisco, Cal.) Major, A.U.S.
 Losh, C. W., Jr., Des Moines (APO 209, New York, N. Y.) Capt., A.U.S.
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Maloney, P. J., Des Moines (Fort Lewis, Wash.) 1st Lt., A.U.S.
 Marquis, G. S., Des Moines (Brooklyn, N. Y.) Lt. Comdr., U.S.N.R.
 Martin, L. E., Des Moines (Helena, Ark.) 1st Lt., A.U.S.
 Matheson, J. H., Des Moines (San Leandro, Cal.) Lt. Comdr., U.S.N.R.
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.) Capt., A.U.S.
 McCoy, H. J., Des Moines (Iowa City, Iowa) Comdr., U.S.N.R.
 McDonald, D. J., Des Moines (APO 339, New York, N. Y.) Major, A.U.S.
 McNamee, J. H., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Mencher, E. W., Des Moines 1st Lt., A.U.S.
 Merkel, B. M., Des Moines (APO 520, New York, N. Y.) Major, A.U.S.
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.) Capt., A.U.S.
 Morden, R. P., Des Moines (APO 635, New York, N. Y.) Capt., A.U.S.
 Mumma, C. S., Des Moines (Los Angeles, Cal.) Major, A.U.S.
 Murphy, J. H., Des Moines (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Nelson, A. L., Des Moines (Camp Livingston, La.) Major, A.U.S.
 Noun, L. J., Des Moines (Camp Peary, Va.) Lt., U.S.N.R.
 Noun, M. H., Des Moines (APO 228, New York, N. Y.) Major, A.U.S.
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.) Lt., U.S.N.
 Patton, B. W., Des Moines (Camp Robinson, Ark.) 1st Lt., A.U.S.
 Pearlman, L. R., Des Moines (Battle Creek, Mich.) Major, A.U.S.
 Peisen, C. J., Des Moines (APO 165, New York, N. Y.) Capt., A.U.S.
 Penn, E. C., West Des Moines (APO 650, New York, N. Y.) Capt., A.U.S.
 Pfeiffer, E. P., Des Moines (APO 501, San Francisco, Cal.) Capt., A.U.S.
 Phillips, A. B., Des Moines (Corona, Cal.) Lt., U.S.N.R.
 Porter, R. J., Des Moines (APO 635, New York, N. Y.) Capt., A.U.S.
 Powell, L. D., Des Moines (Oceanside, Cal.) Capt., U.S.N.R.
 Pratt, E. B., Des Moines (APO New York, N. Y.) Major, A.U.S.
 Priestley, J. B., Des Moines (APO 11377, New York, N. Y.) Lt. Col., A.U.S.
 Purdy, W. O., Des Moines (APO 5935, New York, N. Y.) Capt., A.U.S.
 Riegelman, R. H., Des Moines (APO 559, New York, N. Y.) Major, A.U.S.
 Robinson, V. C., Des Moines (Gulfport, Miss.) Major, A.U.S.
 Rotkow, M. J., Des Moines (Ft. Benj. Harrison, Ind.) Capt., A.U.S.
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Schlaser, V. L., Des Moines (Hutchinson, Kan.) Lt., U.S.N.
 Shepherd, L. K., Des Moines (APO New York, N. Y.) Major, A.U.S.
 Shiffler, H. K., Des Moines (APO 230, New York, N. Y.) Capt., A.U.S.

Singer, P. L., Des Moines (Camp Grant, Ill.)...1st Lt., A.U.S.
 Skultety, J. A., Des Moines (New Orleans, La.)...P. A. Surg., U.S.P.H.S.
 Smead, H. H., Des Moines (APO 595, New York, N. Y.)...Capt., A.U.S.
 Smith, H. J., Des Moines (Chicago, Ill.)...Lt., U.S.N.R.
 Smith, R. T., Des Moines (APO 713, Unit I, San Francisco, Cal.)...Capt., A.U.S.
 *Snodgrass, R. W., Des Moines (APO 9528, New York, N. Y.)...Capt., A.U.S.
 Snyder, G. E., Grimes (APO 264, San Francisco, Cal.)...Major, A.U.S.
 Sohm, H. A., Des Moines (Great Lakes, Ill.)...Lt. Comdr., U.S.N.R.
 Sorensen, R. M., Des Moines (Topeka, Kan.)...Major, U.S.P.H.S.
 Springer, F. A., Des Moines (Treasure Island, Cal.)...Lt. Comdr., U.S.N.R.
 Stearns, A. B., Des Moines (Denver, Colo.)...Major, A.U.S.
 Stickler, Robert, Des Moines (APO New York, N. Y.)...Major, A.U.S.
 Stitt, P. L., Des Moines (Seattle, Wash.)...Lt. (jg), U.S.N.R.
 Throckmorton, J. F., Des Moines (APO 339, New York, N. Y.)...Major, A.U.S.
 Toubes, A. A., Des Moines (APO 635, New York, N. Y.)...Capt., A.U.S.
 Turner, H. V., Des Moines (Camp Fannin, Texas)...Capt., A.U.S.
 Updegraff, Thomas, Des Moines (Spokane, Wash.)...1st Lt., A.U.S.
 Van Hale, L. A., Des Moines (Clinton, Iowa)...Major, A.U.S.
 Vaubel, E. K., Des Moines (Washington, D. C.)...Capt., A.U.S.
 Wagner, E. C., Des Moines (Washington, D. C.)...1st Lt., A.U.S.
 Willett, W. M., Des Moines (APO 507, New York, N. Y.)...Capt., A.U.S.
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Zarchy, A. C., Des Moines (Camp Cooke, Cal.)...Capt., A.U.S.

Pottawattamie County

†Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.)...Major, A.U.S.
 Collins, R. M., Council Bluffs (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Dean, A. M., Council Bluffs (Pensacola, Fla.)...Comdr., U.S.N.R.
 Edwards, C. V., Council Bluffs (Pensacola, Fla.)...Lt. Comdr., U.S.N.R.
 Floersch, E. B., Council Bluffs (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Hennessy, J. D., Council Bluffs (Shawnee, Okla.)...Lt. Comdr., U.S.N.R.
 Jensen, A. L., Council Bluffs (Temple, Texas)...Lt. Col., A.U.S.
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.)...Lt., U.S.N.R.
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.)...Capt., A.U.S.
 Lambert, E. M., Council Bluffs (APO 403, New York, N. Y.)...Major, A.U.S.
 Maiden, S. D., Council Bluffs (Camp Hood, Texas)...Major, A.U.S.
 Martin, L. R., Council Bluffs (San Francisco, Cal.)...Capt., A.U.S.
 Mathiasen, H. W., Neola (Alexandria, La.)...Capt., A.U.S.
 Moskovitz, J. M., Council Bluffs (APO 403, New York, N. Y.)...Capt., A.U.S.
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.)...Capt., A.U.S.
 Standeven, W., Oakland (Colorado Springs, Colo.)...Capt., A.U.S.
 Sternhill, Isaac, Council Bluffs (Camp Crowder, Mo.)...Capt., A.U.S.
 Tinley, R. E., Council Bluffs (APO 600, New York, N. Y.)...Major, A.U.S.
 Treyron, J. V., Council Bluffs (Fleet PO, San Francisco, Cal.)...Comdr., U.S.N.R.
 West, A. G., Council Bluffs (APO 230, New York, N. Y.)...Capt., A.U.S.
 Wieseler, R. J., Avoca (McChord Field, Wash.)...A.U.S.
 Wurl, O. A., Council Bluffs (APO 887, New York, N. Y.)...Lt. Col., A.U.S.

Poweshiek County

Brobyn, T. E., Grinnell (APO 18593, New York, N. Y.)...Major, A.U.S.
 Hickerson, L. C., Brooklyn (APO 559, New York, N. Y.)...Capt., A.U.S.
 Korfmacher, E. S., Grinnell (APO 92, San Francisco, Cal.)...Capt., A.U.S.
 Niemann, T. V., Brooklyn (APO 43, San Francisco, Cal.)...Capt., A.U.S.
 Parish, J. R., Grinnell (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Somers, P. E., Grinnell (St. Louis, Mo.)...1st Lt., A.U.S.

Ringgold County

Seaman, C. L., Mount Ayr (Fort Smith, Ark.)...Major, A.U.S.
 Bassett, G. H., Sac City (Metairie, La.)...Lt. Comdr., U.S.N.R.
 Peters, D. C., Schaller (APO 34, New York, N. Y.)...Capt., A.U.S.
 Evans, W. L., Sac City (APO 9212, New York, N. Y.)...Capt., A.U.S.
 Klocksiem, R. G., Odebolt (Oceanside, Cal.)...Lt., U.S.N.R.
 Neu, H. N., Sac City (APO 708, San Francisco, Cal.)...Lt. Col., A.U.S.

Scott County

†Baker, R. W., Davenport (APO 511, New York, N. Y.)...Capt., A.U.S.
 Balzer, W. J., Davenport (APO 569, New York, N. Y.)...Capt., A.U.S.
 Bishop, J. F., Davenport (Camp Wheeler, Ga.)...Capt., A.U.S.
 Block, L. A., Davenport (Cambridge, Ohio)...Major, A.U.S.
 Boden, W. C., Davenport (APO 3760, New York, N. Y.)...Capt., A.U.S.
 Boyer, U. S., Davenport (Rock Island, Ill.)...Lt. Col., A.U.S.

Brown, M. J., Davenport (APO 562, New York, N. Y.)...Major, A.U.S.
 Carey, E. T., Davenport (APO 928, San Francisco, Cal.)...1st Lt., A.U.S.
 Christiansen, C. C., Dixon (APO 961, San Francisco, Cal.)...Capt., A.U.S.
 Coleman, Tom, Davenport (APO 230, New York, N. Y.)...Capt., A.U.S.
 Cummins, G. M., Jr., Davenport (Fort Custer, Mich.)...Capt., A.U.S.
 Decker, C. E., Davenport (APO 321, San Francisco, Cal.)...Major, A.U.S.
 Evans, H. J., Davenport (Daytona Beach, Fla.)...Capt., A.U.S.
 Gibson, P. E., Davenport (Palm Springs, Cal.)...Major, A.U.S.
 Goenne, Wm., Jr., Davenport (APO 91, New York, N. Y.)...Capt., A.U.S.
 Hurevitz, H. M., Davenport (APO 370, New York, N. Y.)...Major, A.U.S.
 Hurteau, Everett, Davenport (APO 647, New York, N. Y.)...Capt., A.U.S.
 Hurteau, W. W., Davenport (Camp Berkeley, Texas)...Major, A.U.S.
 Kimberly, L. W., Davenport (Hines, Ill.)...Capt., A.U.S.
 Krakauer, Max, Davenport (APO 655, New York, N. Y.)...Capt., A.U.S.
 Kuhl, A. B., Jr., Davenport (Ft. Meade, Md.)...1st Lt., A.U.S.
 LaDage, L. H., Davenport (APO 229, New York, N. Y.)...Major, A.U.S.
 Lorfeld, G. W., Davenport (Columbus, Ohio)...Capt., A.U.S.
 McMeans, T. W., Davenport (APO 557, New York, N. Y.)...Capt., A.U.S.
 Neufeld, R. J., Davenport (APO 565, Unit I, San Francisco, Cal.)...Capt., A.U.S.
 Perkins, R. M., Davenport (APO 121B, New York, N. Y.)...Capt., A.U.S.
 Sheeler, I. H., Davenport (APO 350, New York, N. Y.)...Capt., A.U.S.
 Shorey, J. R., Davenport (APO 204, New York, N. Y.)...Capt., A.U.S.
 Smazal, S. F., Davenport (APO 230, New York, N. Y.)...Capt., A.U.S.
 Sorenson, A. C., Davenport (Oakland, Cal.)...Comdr., U.S.N.R.
 Sunderbruch, J. H., Davenport (APO 322, San Francisco, Cal.)...Capt., A.U.S.
 Weinberg, H. B., Davenport (APO 72, San Francisco, Cal.)...Major, A.U.S.
 Zukerman, C. M., Bettendorf (Chicago, Ill.)...Capt., A.U.S.

Shelby County

Bisgard, C. V., Harlan (Farragut, Idaho)...Lt. Comdr., U.S.N.R.
 Griffith, W. O., Shelby (APO 9490, New York, N. Y.)...Capt., A.U.S.
 McGowan, J. P., Harlan (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.

Sioux County

Gleysteen, R. R., Alton (Portsmouth, Va.)...Lt. Comdr., U.S.N.
 Grossmann, E. B., Orange City (APO 403, New York, N. Y.)...Capt., A.U.S.
 Larson, M. O., Hawarden (APO 562, New York, N. Y.)...Lt. Col., A.U.S.
 Oelrich, A. M., Hull (APO New York, N. Y.)...1st Lt., A.U.S.
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.)...1st Lt., A.U.S.

Story County

Conner, J. D., Nevada (APO 708, San Francisco, Cal.)...Capt., A.U.S.
 Fellows, J. G., Ames (APO 451, New York, N. Y.)...Major, A.U.S.
 Lekwa, A. H., Story City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.
 McFarland, G. E., Jr., Ames (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 McFarland, J. E., Ames (Seattle, Wash.)...Lt. Comdr., U.S.N.R.
 Rosebrook, L. E., Ames (APO 433, New York, N. Y.)...Major, A.U.S.
 Sperow, W. B., (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Thorburn, O. L., Ames (Clovis, N. Mex.)...Major, A.U.S.
 Wall, David, Ames (Ft. Dix, N. J.)...1st Lt., A.U.S.

Tama County

Bezman, H. S., Traer (APO 9875, New York, N. Y.)...Capt., A.U.S.
 Boller, G. C., Traer (Ft. Riley, Kansas)...Capt., A.U.S.
 Dobias, S. G., Chelsea (APO 17928, San Francisco, Cal.)...Capt., A.U.S.
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(*) Reported missing in action.
(†) Reported deceased in service.
(‡) Reported prisoner of war.

FEDERAL REGULATION

(Continued from page 147)

are available to anyone who applies for such service. Similarly, medical diagnosis is made freely available to anyone who applies for services under State vocational-rehabilitation programs. The Rules and Regulations Governing Allotments and Payments to the States of Venereal Disease Funds provide that: "All health departments or clinics receiving funds shall provide facilities for (1) diagnosis and emergency treatment of all patients who apply; (2) continued treatment, consultative advice or opinion for all patients referred by private physicians; and (3) continued treatment for all patients unable to afford private medical care.

It is, therefore, sound public policy that diagnostic services be freely available to any child who applies for services under the State crippled children's program in order that the responsible public agency may determine the need for and extent of care required if the child is to have the best possible physical restoration, emotional and social adjustment and educational and work opportunities.

THE PHYSICIAN'S ATTITUDE TOWARD THE EMIC PROGRAM

It has been suggested that the attention of our readers be called to the address of Dr. E. D. Plass on The Physician's Attitude Toward the Emergency Maternity and Infant Care (EMIC) Program, which he presented before the Annual Conference of Secretaries and Editors in Chicago November 17 and which was published in the January 13 issue of *The Journal of the American Medical Association*. It is regretted that because of paper restrictions we cannot publish this address by Dr. Plass as has been requested.

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WOMAN'S AUXILIARY NEWS

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AN AUXILIARY RESPONSIBILITY*

MRS. EUSTACE A. ALLEN

First Vice-President and Chairman of Organization

For any organization to survive there should be individual responsibility—a body of persons united for a specific purpose. One of the objects of our auxiliary is to increase friendlier relations between the families of physicians and between the medical profession and the laity. The measure of our success depends upon the unified and coordinated support of all members. It means cooperation and recognizing the rights of others. It is a direct appeal to the best that is in us and our fellowman.

Today every organization realizes the need of post-war planning for the continuation of progress and improvement of mankind. Never has there been a time when cooperation was needed more than today. This is a time of interruptions and changes in the steady development of life toward a common consciousness and a common will. It is hoped that these changes will open man's eyes to a fresh aspect of the possibility of a unified world, a world with one thought in mind—the outlawing of war. This is not merely a moral and social revolution but a trend of the most obvious kind, the coordination of all nations of the world.

One great purpose of this war is to change, to fuse and to enlarge all human life. This war has affected the life of everyone, some more than others. There will be more changes and adjustments necessary with the return of our armed forces to civilian life. We hope very shortly there will be coming back to every community the physicians who have served in the armed forces and with them their wives; some of whom have never been members of the auxiliary while others will be strangers to the locality. These wives have served as good soldiers themselves, in many instances breaking up their comfortable homes to be with their physician husbands as long as possible or they have taken up defense work to aid in the war effort. We as the wives of those who have served on the homefront have a responsibility in upholding the ideals of our auxiliary. This can best be accomplished by making this a year of personal service, by showing these prospective members sincere interest, friendliness and imparting to them the importance and advantage of being an auxiliary member.

Much help and cooperation can be given in seeing that they are comfortably located and also in introducing them to the community. Let us show them that we are united in truth as well as in spirit for the purposes for which our auxiliary was founded.

And last, gaining new friends is mining the richness of life. It is the flowering of our own respect to be gracious to new opportunities and new acquaintances. We have different names, different environments, different social experiences, but in our service to the medical profession and medical arts we may all be one and, together in this oneness, seek that fellowship which as gentlewomen we shall always welcome.

LEADERSHIP AND VIGILANCE*

War is the great changer of concepts.

As though to compensate for the misery of those it touches War brings new viewpoints to the minds of men, opening their eyes to the needs of the society they serve and of which they are a part. Thus out of the chaos and agony of War is born social and economic progress for the peoples of the world.

So it is with medical practice and the public demand for hospital and medical care in the United States. The problem of insuring medical care for those who need it most and are least able to bear the cost did not arise from the present War, but it has been brought into its sharpest focus during the past few years of the conflict.

We of the Woman's Auxiliary to the American Medical Association can be justly proud of the contribution being made by the leaders of organized medicine to the solution of this problem. Better national health must be the inevitable result of their efforts.

In achieving this much desired goal, however, we must bend every effort to keep American medicine free and untrammelled, and as a body of intelligent women, reaching into every organization in our respective communities, molders of opinion, we have an extremely important role to play, a searching of our own hearts and minds to discover, if possible, what our relation to the current problem is today.

Let us press on together in the great enterprise which the world knows as the American Medical Association, long since dedicated to freedom and

(Continued on page 161)

*From the December, 1944, issue of "The Bulletin."

*From the December, 1944, issue of "The Bulletin."

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

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The Control of Diphtheria After Fifty Years

WALTER L. BIERRING, M.D., Des Moines

At the annual meeting of the Iowa State Medical Society held in Creston April 17, 18, 19, 1895, the writer was privileged to present a paper entitled "The Modern Treatment of Diphtheria With Demonstration of Method of Preparing Antitoxin".* The original paper was based on the experience of preparing diphtheria antitoxin in the department of pathology and bacteriology at the University of Iowa during the winter of 1894-1895.

This work was the result of study and observation during the previous year at the Pasteur Institute in Paris. In the year of 1894 the writer was privileged to observe the work of Dr. Emile Roux, Director of the Institute, and his associate, Dr. Martin, in the preparation of toxins of the bacillus diphtheriae, the immunization of horses, the processing of antidiphtheritic serum, and the use of the same in the treatment of three hundred patients with diphtheria in the Children's Hospital adjoining the Institute. At the same time there was opportunity to observe a similar number of diphtheria cases at the nearby Hospital Trousseau where the antidiphtheritic serum was not used.

The effect of the new method of treatment at the Children's Hospital was indicated by the drop in mortality rate from the average of the four preceding years of 51.71 per cent to 25 per cent, while at the Hospital Trousseau where antidiphtheritic serum was not used, the mortality rate in 520 cases was 60 per cent, demonstrating at the same time the virulence of the prevailing epidemic.

The diphtheria toxin necessary for immunization was prepared at the University Laboratory, inoculating with virulent diphtheria bacilli a series of Fernbach flasks containing bouillon culture media so arranged as to permit the passing of a constant current of moist air across the surface of the media, which greatly enhanced the production of

the toxins. After a three weeks' growth the cultures were filtered through a Pasteur-Chamberland filter, the toxins being contained in the filtrate. The toxic strength was equivalent to 1 cc. producing death in a five pound rabbit in forty-eight hours. The immunization of the horse started with an injection of $\frac{1}{2}$ cc. of the toxic filtrate which in the course of three months was gradually increased to 200 cc. When this stage of resistance or immunity was reached, the first tapping of blood was made from the jugular vein and the separated serum was found to contain 300 to 500 immunizing units in 20 cc. of serum. With repeated injections of toxin, the antitoxin content was gradually increased to 1200 to 1500 units in 20 cc. of serum. The highest content produced at the Pasteur Institute in Paris was 2000 units in 20 cc. of serum, and this was regarded as the largest dosage necessary fifty years ago. The smaller doses of 300 to 500 units of the Iowa product were used as an immunizing and prophylactic agent, and the larger doses for therapeutic purpose.

The antidiphtheritic serum prepared at Iowa City was used for both purposes in over 300 cases with favorable results and without untoward serum reactions.

This was the first diphtheria antitoxin prepared west of New York City, and for a time its continued production was considered, but it was not carried out because of the expense involved and the experienced personnel required.

After the passage of the years, it will be interesting to recall the state of knowledge regarding diphtheria a half century ago, or at the beginning of a new era in the history of this disease.

The clinical picture of the disease remains unchanged from the classical description by that foremost French clinician of Tours who in 1826 with his *Traite' de la diphtherite* gave it its name "diphtherie" and formed the basis of our knowledge of this later day.

*Republished in the April, 1925, issue of the Journal of the Iowa State Medical Society.

His careful observations and epidemiologic studies, during the succeeding four decades of the various clinical manifestations of diphtheria, clearly demonstrated its contagious nature, its transmission from one person to another, and epidemic spread from one infectious focus, as well as its varying degrees of virulence. He established the unity of pharyngeal diphtheria (malignant angina) and membranous croup or laryngeal diphtheria. His logical explanation of the termination of the disease and recovery therefrom in the human person was prophetic of the later knowledge regarding specific immunity and antitoxin production.

The next significant contribution to the knowledge of diphtheria was its successful experimental transmission to animals by Oertel in 1871. The inoculation of material from the diphtheritic membrane to an ebraded mucus or cutaneous surface in mice, guinea pigs, rabbits, and pigeons resulted in the development of a pseudomembrane at the point of inoculation, followed by systemic signs of illness and death; the latter Oertel attributed to the absorption of a poisonous substance generated at the site of the pseudomembrane.

Perhaps the most important advance was the demonstration of the causative agent by Loeffler in 1884 in the form of a small rod-shaped microorganism termed the bacillus diphtheriae. While Klebs a year previously had demonstrated a similar microorganism, the specific relationship of the Loeffler bacillus to the disease diphtheria was established by its isolation in pure culture, inoculation into lower animals and resulting pseudomembranous production and systemic symptoms with subsequent recovery of the bacillus and growth on culture media.

The description by Loeffler of the characteristic appearance and rectangular arrangement of the bacillus diphtheriae in stained preparations, as well as the typical culture growth on blood serum agar media has formed the basis of bacteriologic diagnosis ever since.

While Loeffler recognized the existence of a diphtheria toxin, it was the researches of Roux and Yersin published in the Annals of the Pasteur Institute in December 1888 that furnished the first clear description of the specific toxin produced by the diphtheria bacillus. The toxin production was increased with longer growth on special culture media and the greater virulence of the diphtheria bacillus likewise augmented it. One cubic centimeter of the toxin solution was fatal to rabbits and guinea pigs, producing the characteristic systemic symptoms, even to the extent of the post-diphtheritic paralysis without the formation of a false membrane at the site of inoculation. These

studies really formed the basis of the present knowledge of bacterial toxins.

In 1890 Behring, Kitasato, and Fraenkel announced the discovery of diphtheria antitoxin as contained in the blood serum of human persons and animals that had recovered from the disease. These German physicians further reported in 1892 and 1893 the therapeutic use of antidiphtheritic serum in experimental animals as well as in a moderate number of human cases with very favorable results. Although antitoxic serum had not been definitely standardized at that time, it was a remarkable advancement and no doubt saved many lives.

This first use of diphtheria antitoxin in a large number of diphtheria patients was at the Children's Hospital, Pasteur Institute, Paris, which was reported by Doctors Roux and Martin in September 1894. This report has been previously referred to. Later the Nobel prize in medicine was conferred jointly on Doctors Emile Roux and Emil von Behring for their eminent contributions to the knowledge and control of diphtheria.

In 1895 the New York City Health Department under the supervision of Dr. William H. Park began to make, distribute, and administer antidiphtheritic serum, and soon afterwards large scale production of diphtheria antitoxin was started by many pharmaceutical concerns.

By means of various chemical concentrating and refining procedures it has been possible to remove and eliminate a large portion of the horse serum which contains the undesirable constituents. With this refined and purified material, the volume is smaller and consequently the serum reactions are reduced to a minimum. A dose of 10,000 units of diphtheria antitoxin cannot be obtained in as small a volume as 3 cc.

The official unit for diphtheria antitoxin adopted in this country was established by M. J. Rosenau in 1905. A unit of antitoxin is defined as the smallest amount of antitoxin which will save the life of a 250 gram guinea pig when injected together with a lethal dose of diphtheria toxin.

Great changes have developed in the dosage of diphtheria antitoxin and its mode of administration. Where a dosage of 1000 to 2000 units was regarded as sufficient fifty years ago, at the present time from 10,000 to 20,000 units are given in an ordinary case, while in a malignant case from 60,000 to 100,000 are often administered.

Antitoxin is now administered in three ways, intravenously, intramuscularly and subcutaneously. According to Park antitoxin diffuses ten times more rapidly when given intravenously than subcutaneously and four times more rapidly when

given intramuscularly than when given subcutaneously. In all laryngeal and other severe cases, the intravenous method is therefore indicated.

The history of active immunization against diphtheria as applied to man is an interesting one. As early as 1892 Behring and Wernicke showed that susceptible animals might be safely immunized by inoculation with increasing doses of living diphtheria cultures after a protective dose of antitoxin.

In 1909 Theobald Smith immunized guinea pigs with a mixture of diphtheria toxin and antitoxin and suggested that it could be used as a practical means of immunizing children.

Behring in 1913 was apparently the first actually to immunize children against diphtheria with diphtheria toxin-antitoxin mixture.

Distinct progress was made in the control of diphtheria when a simple method was found to determine susceptibility and means of producing active immunity. The Schick test was first described by Bela Schick in 1913. In the United States the test toxin for the Schick test is so standardized that the amount injected intradermally, usually 0.1 cc., contains 1/50 of the minimal lethal dose of diphtheria toxin for a 250 gram guinea pig.

In 1914 Park and Zingher of the New York City Department of Health used the Schick test and toxin-antitoxin on a large scale and thus popularized its use in this country. This also marks the real beginning of diphtheria control, first in this country and later in other parts of the world.

In 1924 Ramon was successful in detoxifying diphtheria toxin by the addition of small amounts

of formalin and called the product anatoxin or toxoid. When it was found that toxoid would produce a much higher immunity than toxin-antitoxin, the latter was soon displaced by toxoid.

In 1926 Glenn and associates showed that the response to toxoid can be increased by delaying the absorption through precipitation of the toxoid with potassium alum. The delayed absorption leads to a slower excretion resulting in a prolonged antigenic stimulation.

From statistics here in Iowa and that of other state and city boards of health, it is shown that diphtheria has been largely controlled where a large number of children have been immunized with toxin-antitoxin, toxoid or alum precipitated toxoid.

It is generally accepted that two doses of plain toxoid will give a higher immunity than three doses of toxin-antitoxin, and likewise that one dose of alum precipitated toxoid will give a greater antigenic response than two doses of plain toxoid.

The progress that has been made in the control of diphtheria during the past fifty years is remarkable. The facilities for such complete control are at hand, and are but to be used.

That a large metropolitan area as New York City is diphtheria free, should be an example to the entire world.

This article is written with the thought of its historical interest. By comparison it can be said that the fundamental principles governing the preparation, distribution, and therapeutic use of diphtheria antitoxin at the University of Iowa Medical School a half century ago essentially hold good today.

Medical History of Wapello County

CLYDE A. HENRY, M.D., Farson

Part IV

A COMPENDIUM OF WAPELLO COUNTY MEDICAL HISTORY FROM 1853 TO 1945

(Continued from last month)

Jefferson Williamson was born in Adams county, Ohio, on March 31, 1827, and died January 12, 1904, in Ottumwa. He received a good, common school education, and was a private student two years under Professor Robert Buck of West Union, Ohio. He studied medicine under Dr. H. G. Jones for two years and attended the Medical Department of the Western Reserve College at Cleveland, from which he received his medical degree in 1852. He married Miss Sarah

N. Jones of Wilmington, Ohio, on May 27, 1852. They had one daughter by adoption, who married Mr. A. J. Colt on September 21, 1881.

When the American Medical Association planned the centennial meeting which was held in Philadelphia, a request was made of the various state societies to prepare and present the medical histories of their respective states. In accordance with this request, a resolution was adopted by the Iowa State Medical Society in

1875 authorizing the President to appoint a committee of five for this purpose. Subsequently, President Peck appointed Dr. J. Williamson chairman, with Drs. Middleton, McCulloch, Fairchild, and Thrall.

At the next annual meeting of the State Society, January 27, 1876, Dr. Williamson, who as chairman of the committee was to present to the centennial meeting at Philadelphia the History of Medicine in Iowa, made a verbal report, stating he had been unable to collect sufficient material from the doctors of the state to make a respectable record. He then tendered his resignation, which the Society reluctantly accepted; but, fortunately, Dr. D. S. Fairchild, then of Ames, was appointed in his stead and Dr. J. J. M. Angear of Fort Madison was added to the committee. Dr. Williamson was immediately appointed chairman of the committee on publication which included Drs. A. G. Field, W. D. Middleton, S. B. Thrall, and J. W. Gustine. Thus was the beginning of recorded Medical History in Iowa.

Dr. Williamson was vice president of the State Society in 1865, and president in 1873. He was also an officer of the International Medical Congress which was held in Washington, D. C., in September 1887.

Dr. Williamson came to Ottumwa in November 1852, and engaged at once in the practice of medicine. His cash income for the first year was less than one hundred dollars. His pioneer patients had very little money. Consisting mostly of farm people, they settled their accounts with hay and grain for the horses, and butter and eggs and meat for his family.

He was one of the founders of the Wapello County Medical Society, in 1853; assisted in the reorganization of the Society after the Civil War, in 1870, and was one of the founders of the Des Moines Valley Medical Association, in 1873, assuming in each a responsibility greater than that of any other member for its successful development by serving each of them efficiently as secretary for many years. Nor should it be forgotten that he was one of a group of five physicians who so successfully established and directed the destinies of the public schools of Ottumwa for more than a quarter of a century. He was the author of many published articles, a valued contributor to the programs of the State Society, and was frequently called by various groups to discuss the medical problems of those days. He was also active for many years on committee assignments in the American Medical Association.

Dr. Williamson was an accomplished scholar, a courteous gentleman and an outstanding leader

in both civic and professional affairs in the early days of Wapello county.

Joseph Crawford Hinsey was born in Butler County, Ohio, June 9, 1829, and died April 9, 1892, at his home in Ottumwa. Soon after his birth his parents, William and Mary Hinsey, moved to Tazewell County, Illinois, and settled at an old Fort near which the city of Pekin now stands. His father died when he was eight years old. Although his mother married again, he remained with her family until he was fourteen years old, at which time he moved to Whiteside County, Illinois, to work for an uncle, Jonathan Haines. A contract was entered into, by the terms of which young Hinsey was to be allowed a certain amount of time for schooling while learning the trade of carpenter and joiner with his uncle. As to school, the terms of the contract were flagrantly violated; and after helping his uncle construct and operate his first "Haines Harvester and Header," of which he was inventor and patentee, the lad left his uncle to shift for himself at odd jobs in the neighborhood. After a few months he became an employee of Dr. A. Brown, who was a botanic doctor. Not only did young Hinsey have access to the doctor's library, but he also assisted him in collecting the herbs and roots which were processed and manufactured into the pills he used. The boy was fascinated with his work, and soon contracted to stay with Dr. Brown for three years, with the understanding that he should be allowed money to attend a botanic medical college. When the first year of study had been completed, he entered an Eclectic Medical College, the Cincinnati Medical College, for one year. The third year was spent at the Ohio Medical College. Having completed his three years of study, he spent a short time in Whiteside County, and then, in the winter of 1849, he returned to Pekin, Illinois, and entered the office of Drs. Fitch and Quigley, remaining with them for one year. He then entered Rush Medical College, Chicago, and graduated in the class of 1851. He returned to Pekin to begin his practice, and there married Miss Olive R. Upson in March, 1851. Two children resulted from this marriage, one dying in infancy. In August, 1853, death came to his wife.

During the following winter, Dr. Hinsey attended a course of lectures at the Medical Department of the University of Pennsylvania, receiving therefrom the *ad eundem* degree of which he was justly proud. In the fall of 1854, he left Illinois on horseback and came to Iowa, hoping to improve his health which had become impaired from overwork and study. In due time, he arrived in the old town of Dahlonga, then a thriving village, almost as large as Ottumwa. He was favorably

impressed with the village people and the surrounding countryside, and at once engaged in the practice of medicine. When he arrived in Dahlonga, he had \$2.50 in money, and \$40.00 in worthless script. He remained in Dahlonga seven years, during which time he built up an extensive and successful practice. In the spring of 1862 he was appointed Surgeon of the Board of Enrollment with headquarters in Iowa City, but resigned in 1863, and moved to Ottunwa. He served one term as supervisor for Dahlonga township; was county coroner four years, and was chairman of the convention that organized the Republican party in Wapello County in 1856. In 1856 he married Miss Louisa F. Lentner, of Dahlonga, who survived him nine years. The two sons and eight daughters by this marriage reached mature years, but none of them aspired to a medical career. However, a grandson, Joseph C. Hinsey, Jr., is following in the footsteps of his illustrious grandfather. He graduated from Northwestern University Medical School, Chicago, and Washington University School of Medicine, St. Louis. After graduation, he returned to the medical staff at Northwestern University, and served there until called to Stanford University, Palo Alto, California, where he filled the Chair of Anatomy, and did extensive research work for six years. He was then called to Cornell University Medical College, New York, filling in turn the Chairs of Physiology and Anatomy. He is now Dean of the School of Medicine.

More than fifty years have passed since the death of Joseph Crawford Hinsey, but he is still remembered for his efficiency as a surgeon in the pre-antiseptic and pre-aseptic days of surgery in Iowa; and to many of the older residents of Wapello County he will remain the highest ideal of an old time representative of medicine and surgery.

(To be continued)

ART CONTEST NOT CANCELED

The art contest sponsored by Mead Johnson & Company on the subject of "Courage and Devotion Beyond the Call of Duty" (on the part of physicians) has not been canceled or postponed. The closing date remains May 27, 1946.

There will be no annual exhibit this year of the American Physicians Art Association, due to the cancellation of the American Medical Association meeting which had been scheduled to take place in Philadelphia, June 18 to 22, 1945.

For full details regarding the \$34,000 prizes and the "Courage and Devotion" contest, write Dr. Francis H. Redewill, Secretary, A. P. A. Association, Flood Building, San Francisco, California, or Mead Johnson & Company, Evansville, Indiana.

WOMAN'S AUXILIARY NEWS

(Continued from page 156)

search for truth. Today it carries on its great traditions.

Cross currents among us for the moment may seem to tumble our bark about, but we sail in open waters with our compass handed to us by that splendid body of men, the American Medical Association. If we keep our prow ever toward that desirable harbor which they conceive, no wind of opinion can long carry us off the course, for it is the set of the sail and not the gale that determines finally the direction in which we move. And we shall set sail in just one boat.
—MRS. AUGUSTUS S. KECH

THE LONG, LONG ROAD*

"Hospital management was bad in the 17th century the world over. It was worse in the 18th. There was the same overcrowding, several patients occupying one bed or pallet, the same absence of ventilation, the same presence of vermin and filth, the same lack of appreciation of the need for isolation of contagious diseases, the same misdirected effort at nursing, the same fatal issue following every attempt at major surgery. The mortality in the general hospitals of the period could not have been less than 20%.

"The fearful mortality that accompanied hospitalization in America at this time received further comment from Dr. Thatcher, who wrote, 'It has been estimated that the loss of lives in the various armies of the United States during the war is not less than 70,000. The number who died on the horrid prison ships of the enemy cannot be calculated. It is, however, confidently asserted that no less than 11,000 of our brave soldiers died on board the one called Jersey Prison Ship only.'

"On April 15, 1708, the Council ordered 'that a house be hyred for the accommodation of the sick men belonging to her Majesty's Ship the Garland and that the Rent of the said house be paid out of her Majesty's Revenue of two Shils per hogshead and it is recommended to Collo William Wilson to provide a house accordingly.' However, it was not until 1780 that steps were taken to establish a permanent marine hospital."

*Quoted from "A Sketch of Medicine and Pharmacy" by S. E. Massengill, M.D.

SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 2:45 p. m.

WSUI—Thursdays at 9:00 a. m.

- | | | |
|-------------|--|------------------------|
| April 4- 5 | Cancer | Allen C. Starry, M.D. |
| April 11-12 | Anesthesia | Ralph E. Gray, M.D. |
| April 18-19 | Common Symptoms of Gallbladder Disease | James A. Jacoby, M.D. |
| April 25-26 | Evacuation Hospital in Combat Area | J. Philip Cogley, M.D. |

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

LIPPINCOTT'S QUICK REFERENCE BOOK FOR MEDICINE AND SURGERY, a Clinical, Diagnostic, and Therapeutic Digest of General Medicine, Surgery, and the Specialties, Compiled Systematically from Modern Literature—By George E. Rehberger, M.D. Twelfth edition. J. B. Lippincott Company, Philadelphia, 1944. Price, \$15.00.

ATLAS OF THE BLOOD IN CHILDREN—By Kenneth D. Blackfan, M.D., Late Thomas Morgan Rotch Professor of Pediatrics, Harvard Medical School, Late Physician-in-Chief, Infants' and Children's Hospitals, Boston; LOUIS K. DIAMOND, M.D., Assistant Professor of Pediatrics, Harvard Medical School, Visiting Physician and Hematologist, Infants' and Children's Hospitals, Boston. With illustrations by C. MERRILL LEISTER, M. D., Associate Pediatrician, St. Luke's Hospital, Bethlehem and Allentown General Hospital, Allentown, Pennsylvania. The Commonwealth Fund, New York, 1944. Price, \$12.00.

ARTERIAL HYPERTENSION, Its Diagnosis and Treatment—By Irvine H. Page, M.D., and Arthur Curtis Corcoran, M.D., Research Division of the Cleveland Clinic Foundation, Cleveland, formerly Lilly Laboratory for Clinical Research, Indianapolis City Hospital, Indianapolis. The Year Book Publishers, Inc., Chicago, 1945. Price, \$3.75.

OPERATIONS OF GENERAL SURGERY—By Thomas G. Orr, M.D., Professor of Surgery, University of Kansas School of Medicine, Kansas City, Kansas. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

MILITARY MEDICAL MANUALS, MANUAL OF CLINICAL MYCOLOGY—Prepared under the Auspices of the Division of Medical Sciences of the National Research Council. W. B. Saunders Company, Philadelphia, 1944. Price, \$3.50.

THE 1944 YEAR BOOK OF GENERAL SURGERY—Edited by Evarts A. Graham, M.D., Professor of Surgery, Washington University School of Medicine; Surgeon-in-Chief of the Barnes Hospital and of the Children's Hospital, St. Louis. The Year Book Publishers, Inc., Chicago, 1944. Price, \$3.00.

SURGERY OF THE HAND—By Sterling Bunnell, M.D., honorary member of American Academy of Orthopedic Surgeons; member of American Association of Plastic Surgeons and of American Society of Plastic and Reconstructive Surgery. J. B. Lippincott Company, Philadelphia, 1944. Price, \$12.00.

MEDICAL USES OF SOAP—Edited by Morris Fishbein, M.D. A symposium by Rudolf L. Baer, M.D., Irvin H. Blank, Ph.D., Theodore Cornbleet, M.D., Morris Fishbein, M.D., G. Thomas Halberstadt, B.S., Ch.E., Lester Hollander, M.D., Daniel J. Kooyman, Ph.D., C. Guy Lane, M.D., Carey McCord, M.D., Marion B. Sulzberger, M.D. J. B. Lippincott Company, Philadelphia, 1945. Price, \$3.00.

THE ART OF RESUSCITATION—By Paluel J. Flagg, M.D., Chairman, Committee on Asphyxia, American Medical Association; President and Founder of the Society for the Prevention of Asphyxial Death, Inc. Reinhold Publishing Corporation, New York, 1944. Price, \$5.00.

BOOK REVIEWS

PRINCIPLES AND PRACTICE OF SURGERY

By W. Wayne Babcock, M.D., Emeritus Professor of Surgery, Temple University, Acting Consultant, Philadelphia General Hospital; with the collaboration of thirty-seven members of the faculty of Temple University. Lea & Febiger, Philadelphia, 1944. Price, \$12.00.

This excellent book on the principles and practice of surgery is a classic text. The latest advances in surgery and surgical technic are presented in an understandable manner and interesting style. All branches of surgery are discussed and many detailed phases mentioned.

The contents are divided into four categories: General Surgery, Surgical Technique, The Surgery of Systems, and Regional Surgery.

It is the impression of the reviewer that this book will add much to the library of both the surgeon and the internist since it imbibes the most recent advances not only in the technic of surgery but also in the treatment of patients. It is highly recommended.

J. B. P.

PATIENTS HAVE FAMILIES

By Henry B. Richardson, M.D., Associate Professor of Clinical Medicine, Cornell University Medical College; Attending Physician, New York Hospital; Visiting Physician, Bellevue Hospital. The Commonwealth Fund, New York, 1945. Price, \$3.00.

Henry B. Richardson has added another contribution to the list of books recently published which deal

with the mental phases of all sorts of illnesses. It approaches their psychosomatic aspects from the standpoint of the patient's family. The author presents a number of case histories which are of great interest to the reader because, in a sense, they depict an inter-family psychoneurotic reaction which might be likened to a neurosis contagion. The more we know of the influences which lead to nervous and mental instability, the better prepared we are to deal with them, individually and collectively.

This book prompts us to think of the family as a culture medium upon which many noxious personal characteristics may grow.

F. A. E.

THE PATHOLOGY OF INTERNAL DISEASES

By William Boyd, M.D., Professor of Pathology and Bacteriology in the University of Toronto, Toronto; formerly Professor of Pathology in the University of Manitoba, Winnipeg, Canada. Fourth edition, thoroughly revised. Lea & Febiger, Philadelphia, 1944. Price, \$10.00.

The stated objective of Boyd's most scholarly text, "The Pathology of Internal Diseases," is to present in a single volume the relations of anatomy, physiology and histology to the problems which confront every general practitioner. A discussion of the *relation of symptoms to lesions* concludes the discussion of every subject of major importance in the book. The book is, then, not an ordinary textbook of pathology; rather, it is a source of information about the fundamental processes of disease, intended more for the use of the clinician than of the medical student.

This fourth edition, thoroughly revised with the addition of many new topics, is recommended without reservation by its reviewer.

The author needs no recommendation. His several books have long been recognized as the most readable, usable works on pathology yet published. R. F. B.

CLINICAL HEART DISEASE

By Samuel A. Levine, M.D., Assistant Professor of Medicine, Harvard Medical School; Physician, the Peter Bent Brigham Hospital, Boston; Consultant Cardiologist, Newton Hospital; Physician, New England Baptist Hospital, Boston. Third edition, revised and reset. W. B. Saunders Company, Philadelphia, 1945. Price, \$6.00.

The third edition of this practical work on cardiology maintains the same high standards established by the previous editions in presenting in a lucid form practical facts about the heart.

The author persists in adhering to his principle of including only proved facts and does not attempt to cover all phases of the literature. More electrocardiograms were added to illustrate clearly the points under discussion. In addition there is a brief discussion of phonocardiography, along with illustrated sound records. The surgical treatment of patent ductus arteriosus and the recent improvement in the treatment of subacute bacterial endocarditis, including the use of penicillin, have been amplified.

This volume is an excellent desk reference for the busy practitioner. G. E. M.

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1943

American Medical Association, Chicago, 1944. Price, \$1.00.

The present volume of reprints contains only eight reports on rejected articles; it is interesting to note that objections to these are on a much higher plane than those it was necessary to urge against the flagrantly quackish preparations of earlier days.

Perhaps the most noteworthy of the nineteen general and "status" reports in this volume is the one declaring the Council's intention of using henceforth only the metric or centimeter-gram-second system in its publications. The report itself gives some interesting and readable history on the subject of weights and measures. Of most timely interest to the general physician as well as the endocrine specialist is the report on nomenclature of endocrine preparations. The report gives a currently quite complete list of the available commercial preparations, including those not accepted by the Council as well as those which stand accepted. Another report in the field of endocrinology is that recognizing the use of estrogens in the treatment of prostatic carcinoma.

Attention should be called to at least two of the reports concerned with vitamin preparations, name-

ly, the status report giving the Council's decision that the evidence does not yet warrant the acceptance of cod liver oil preparations for external use, and the report announcing the Council's recognition of the use of massive doses of vitamin D in arthritis.

The status report on xanthine compounds gives a much needed delimitation of the therapeutic claims that may be recognized for aminophylline and its related xanthine derivatives. Of similar interest is the report on the local use of sulfonamides in dermatology, and in the same category may be mentioned the report on agents for the treatment of trichomonas vaginitis, which points out that the present aim should not be for new medicaments in this field but for further information, especially concerning failures with those that have been used. In another status report the Council sets forth its conclusion that present evidence does not justify claims for advantage of oral use of sodium sulfonamides over the free drug.

In line with its decision to consider for acceptance various contraceptive preparations, the Council published a status report on conception control, which is concluded in this volume. The report comprises a series of concise statements on the various preparations and methods of control, prepared by Dr. Robert Latou Dickinson, together with a statement of criteria by which the Council will consider the acceptability of contraceptive jellies, creams and syringe applicators and nozzles, diaphragms and caps.

THE 1944 YEAR BOOK OF PEDIATRICS

Edited by Isaac A. Abt, M.D., Professor of Pediatrics, Northwestern University Medical School; with the collaboration of Arthur F. Abt, M.D., Comdr., M.C., U.S.N.R., Associate Professor of Pediatrics, Northwestern University Medical School. The Year Book Publishers, Chicago, 1945. Price, \$3.00.

Review of any of the Year Book series in a medical journal is scarcely necessary since it is inconceivable that there is any physician who is not already thoroughly aware of the service performed by these little but valuable volumes. The 1944 book on pediatrics is essentially an abstract of the world's pediatric literature by those two top-notch, nationally known pediatricians—Dr. Isaac Abt and his son, Arthur. Thus the reader can be assured that a careful selection of articles has been made and the abstracting done in such a way that the full meat of the original article is presented.

What has been written on some twenty-two pediatric subjects by various authors has been brought together in abstract form in this 427 page book. Author, title, and publication are given for each article so that the reader may readily refer to the original if he so desires. As a saver of time, and as a means of keeping informed in the most recent developments in the pediatric field, this book is highly recommended. It should be owned by every physician who deals with children.

L. F. H.

SOCIETY PROCEEDINGS

Black Hawk County

A dinner meeting of the Black Hawk County Medical Society was held in Waterloo at Black's Tea Room Tuesday, March 20, at 6:30 p. m. Major Edward L. Rohlf, M.C., of Waterloo, who is home on emergency leave after serving thirty-two months in the Mediterranean and European theaters of war, was the guest of honor and told of his experiences in this war.

H. A. Bender, M.D., President

Johnson County

The regular meeting of the Johnson County Medical Society was held in Iowa City at Hotel Jefferson Wednesday, March 7, at 6:00 p. m. The guest speaker of the evening was A. Earl Walker, M.D., Professor of Neurosurgery at the University of Chicago, who presented an illustrated lecture on The Syndrome of Cerebral Concussion. Discussion of the paper was led by A. L. Sahs, M.D., of the Department of Neurology and W. R. Miller, M.D., of the Department of Psychiatry at the State University of Iowa College of Medicine.

R. H. Flocks, M.D., Secretary

Page County

Members of the Page County Medical Society met at the Municipal Hospital in Clarinda Thursday, March 1, at 6:30 p. m. Guest speakers were Charles P. Baker, M.D., and Eugene E. Simmons, M.D., of Omaha, Nebraska. Several physicians residing outside of Page County were also in attendance.

J. F. Aldrich, M.D., Secretary

Scott County

The March meeting of the Scott County Medical Society was held in Davenport at the Lend-A-Hand Club Tuesday evening, March 6. Following dinner, Robert A. Hayne, M.D., Chief of the Division of Neurosurgery, Department of Surgery, State University of Iowa College of Medicine, spoke on Common Neurologic Disturbances.

L. J. Miltner, M.D., Secretary

Tama County

Members of the Tama County Medical Society held a meeting Thursday evening, March 1, at the American Legion Hall in Toledo. Dinner was served by the American Legion Auxiliary.

Wapello County

April meetings of the Wapello County Medical Society will be held April 3 and April 17 at St. Joseph Hospital in Ottumwa. On April 3 Harold A. Spilman, M.D., of Ottumwa will present a scientific film entitled Diagnosis and Treatment of In-

fections of the Hand. A business meeting is scheduled for April 17.

Washington County

The Washington County Medical Society met Thursday evening, March 8, for an oyster supper. John W. Dulin, M.D., Associate Professor of Surgery at the State University of Iowa College of Medicine, was the guest speaker of the evening. The subject of his address was Appendicitis.

W. S. Kyle, M.D., Secretary

PERSONAL MENTION

Lt. Col. Dennis H. Kelly has returned to Des Moines and at present is on terminal leave after thirty-one months of active duty in the Army Medical Corps, most of which time was spent as Executive Officer of Fitzsimons General Hospital in Denver. The Journal is indeed happy to have Dr. Kelly resume his position of Associate Editor.

Dr. David A. Herron, who has practiced in Alta for the past twenty-nine years, has moved to Iowa Falls where he has taken over the practice and equipment of the late Dr. Bert E. Purcell, eye, ear, nose and throat specialist.

DEATH NOTICES

Daly, James Joseph, of Decorah, aged seventy-five, died February 20 of a heart attack. He was graduated in 1898 from Northwestern University Medical School, and at the time of his death was a life member of the Winneshiek County and Iowa State Medical Societies.

Hasek, Victor Hugo, of Cedar Rapids, aged fifty-three, died February 25 after a brief illness. He was graduated in 1916 from the University of Illinois College of Medicine, and at the time of his death was a member of the Linn County and Iowa State Medical Societies.

Thomson, John Allen, of Soux City, aged sixty-five, died February 28 following a cerebral hemorrhage. He was graduated in 1904 from the Sioux City College of Medicine, and at the time of his death was a member of the Woodbury County and Iowa State Medical Societies.

Walker, Claude Martin, of Kellerton, aged seventy-one, died March 2 after an illness of several months. He was graduated in 1898 from the St. Louis College of Physicians and Surgeons, and at the time of his death was a member of the Ringgold County and Iowa State Medical Societies.

The JOURNAL

of the

Iowa State Medical Society

VOL. XXXV

DES MOINES, IOWA, MAY, 1945

No. 5

ONE MAN'S OPINION

M. C. HENNESSY, M.D., President
Iowa State Medical Society

I have asked for the privilege of addressing this organization with the hope of selling to you a few ideas of mine, and solely with the thought in mind of increasing the efficiency of our organization and of keeping it modernized. The observations and suggestions I am about to make have been formulated during the period of my activities over a number of years as an official in various capacities in the State Society. I have served on various committees of both the House of Delegates and the Council, having been a member of the Council for ten years, two of which were in the capacity of chairman. I have also served as a member of the Board of Trustees, as president-elect for one year, and am now finishing my term as president.

REPORTS BY PRESIDENT AND PRESIDENT-ELECT

As I have attended the meetings of the House of Delegates, I have always felt there is one thing that is striking by its absence, and that is that the president never has, nor is he required to present to the House of Delegates his viewpoints and recommendations for the good of the Society. I hope that my discussion will result in the House of Delegates making it a mandatory duty of the president to present to it his views and opinions on the workings of the State Society, for its consideration and action. No man could have served in the various capacities, and as president, without having developed some fixed ideas of conditions which could be improved, or of others that should be eliminated, or something added which may be of service to the Society; and at the present time there is no exact method by which the president can do this, except through the various committees. But these committees have certain functions and some of the ideas generated by the

president, based on his experience, cannot feasibly be presented. Because of this situation, it is my opinion that the president should be required to make an annual report to the House of Delegates, and that the same opportunity be given the incoming president so that he may indicate what he hopes to accomplish during his term of office.

STRUCTURE OF THE HOUSE OF DELEGATES

The biggest surprise I ever received as an officer of this organization was the fact that I, as an elected official along with all the other elected officials, was an automatic member of the House of Delegates. I never could understand, from my first meeting up to the present day, why that should be, and I have repeatedly, over the years, questioned the sagacity of such a structure. It has never appeared to be democratic to me. The elected group of officials can always control the vote in the House of Delegates, if they are so minded. If you should ask me if this has ever taken place, I would frankly answer, "Never to my knowledge." Please remember that these officials are only human beings, however, and certainly when actions, of which they have approved during the interim between meetings of the House of Delegates, are presented to the House for its approval or rejection, it is not likely that they will vote disapproval. This style of membership of the House of Delegates is a continuous, open invitation to a few high-pressure politicians to take over the affairs of the State Medical Society and, in my opinion, the Constitution should be altered to read that the House of Delegates shall consist of the duly elected delegates of the component county societies, together with the president and the secretary, and that the voting power be solely in the hands of the delegates, with the president voting only in case of a tie, and that the other elected officials be required to be present at each meeting of the House of Delegates to furnish any information required, but with no voting privileges.

SPEAKERS BUREAU

Some years back the Society authorized the formation of the Speakers Bureau. This was an idea engendered with the thought of keeping our membership well informed on medical topics, scientific and otherwise. I approved of that thought and I still do. However, I do believe that this has resulted in some harm to both the State Society and its component county societies. The programs furnished by the Speakers Bureau have been of the highest type, so much so that they have interfered with the meetings of the smaller county societies, and I feel have hurt the county societies, and indirectly, the State Society. The fact that this councilor district, or that councilor district, is putting on a six to eight week refresher course results in the societies in that area not holding their own county meetings, and with the further result that the members of those societies lose interest in their own society. This failure to have county meetings discourages the members in preparing papers for programs and stifles their desires to appear as essayists. Any time the State Society fosters anything which will destroy a county society it is fostering its own doom. We must never lose sight of one fact, and that is that the county society is the foundation upon which our State Society is built. It is my opinion, therefore, that it is imperative the Society restudy and redefine the duties of the Speakers Bureau in an endeavor to maintain its good, and at the same time protect the interest of each county society. As a suggestion along this line, it is my opinion that the host society should be required to provide at least one essayist for the program, and that each society be required to act as host for at least one meeting sponsored by its district.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

The Iowa State Medical Society is entitled to three delegates to the American Medical Association. I have studied the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY and the Handbook of the State Society, covering a period of years. In most of those years there has been no report in the JOURNAL of the delegates who attended the annual session of the American Medical Association, and the first official notice we in Iowa have received was in the Handbook of the annual meeting, which as you know is issued shortly before the annual meeting. This, to me, can result in the Iowa Society not being fully informed as to the contemplated projects of the American Medical Association, and surely we should know, as one of the component societies, what is going on. Cer-

tainly the president should be informed, so that during the course of his term he can at least direct some of the efforts of the State Society, either in approving or rejecting the proposals of the American Medical Association. With this thought in mind, it is my opinion that the incoming president of the State Society automatically should become one of the delegates to the American Medical Association, and that it be mandatory for each delegate to furnish a report of the meeting, within sixty days of the session, for publication within ninety days in the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY.

CENSORSHIP

At the present time there is no internal dissension which requires any censorship action by the State Society. In recent years there were two such cases, involving the affairs of two of our county societies. There seemed to be no proper manner in which to dispose of these cases. In one, however, the members of the county society, meeting with the Council, finally straightened out their difficulties to the satisfaction of the membership of their county society and also of the Council. This was not made possible by any particular rules, but merely by the fact that the members of the county society involved essentially straightened out the situation themselves. In the other case, time and death cured the situation. Waiting for death to make decisions for an organization of our type is scarcely a laudable procedure, and it would seem to me that it now is time for this organization to study and enact the necessary legislation to handle any such cases in the future.

These suggestions are made, not necessarily with the thought that you will accept them in toto, but with the thought that whether you reject or accept the ideas advanced they will at least merit your consideration. So far, it would seem as if I have nothing to do or offer other than criticism. That thought is far from the fact.

EXECUTIVE COUNCIL

It is this man's opinion that the finest action taken by the State Society was the authorization of the formation of the Executive Council to act and assume the powers of the House of Delegates between meetings of the House. Each year the Executive Council is proving more valuable than I believe was anyone's fondest expectation. I am sure it has engendered in your officers a feeling of authoritativeness which they did not have before. In other words, they do not have the feeling that maybe their efforts will be of no avail; and I am of the opinion that over the years it will prove to be more valuable than it has to date.

RELATIONSHIP BETWEEN THE STATE SOCIETY AND
THE COLLEGE OF MEDICINE

I am impressed with the decreasing antagonism between the members of the medical profession and the medical college. That type of condition has existed in almost all of the states which have operated medical schools. Why it exists I do not know, nor would I attempt to guess. One reason offered is that everyone is proud of his own Alma Mater. I am not an alumnus of Iowa, but of the University of Illinois. I am proud of Illinois, but I am also proud of the University of Iowa and its accomplishments. I am, first of all, a citizen of Iowa. Personally I wouldn't give a dime a dozen for doctors who aren't proud of their Alma Maters—and by the same reasoning, neither would I give a dime a dozen for doctors living in Iowa who would in any way interfere with the growth of our medical college. After all, no matter where we graduated, whether it was a privately endowed school or a state school, you can accept it as a fact that not one of us ever paid in dollars and cents for the education we received; and I hold that it is the sacred obligation of each and every medical man to do everything in his power to foster better medical education for the oncoming generations of Doctors of Medicine. I can think of no reason why the relationship between the medical profession and the medical college should not be on the highest plane. We can be of value to the University, and certainly it can be of great service to us.

STATE DEPARTMENT OF HEALTH

I think that our relationship with the State Department of Health has been, if I may use the term, "healthy." However, I think I should be remiss if I did not make the suggestion to the State Department that it not make any agreement with us which it either cannot or does not live up to. Please do not misunderstand this statement. I am not trying to pick a fight with the State Department of Health, but I do recall that on various occasions the State Department of Health has asked the Council for approval of contemplated actions of the State Department, and after approval was obtained as a part of that agreement, the State Department agreed it would do nothing in any county without first obtaining approval of the county medical society. I do not know what has happened in other counties, but I do know that in my own county (Pottawattamie) that type of agreement has not always been lived up to by the State Department of Health and, candidly, I do not think that that should be the case.

COOPERATION BETWEEN MEDICAL SOCIETY AND
OTHER STATE HEALTH AGENCIES

I believe there should be some effort expended by us toward the development of a cooperative action between our group and the medical men associated with some of our state institutions. There never has been much accomplished, at least not to my knowledge, to improve medical conditions in the mental hospitals and the other hospitals under the jurisdiction of the Board of Control. I believe we should try to develop some type of program so that this organization can not be accused of laxness, both as doctors and as citizens. I don't believe we would have much defense if we were so charged now.

Before closing, I want all of you to know that my duties in the various capacities have given me an untold pleasure, and I have not regretted one moment of the time or effort expended. Further, I have enjoyed the associates with whom I have had the privilege of working—a group of men over the years who essentially have been chosen (if I may be so bold as to say) "at random," men who worked with sincerity of purpose and not one of whom to my knowledge ever endeavored to "feather his own nest" or further his own particular aggrandizement at the expense of the Society.

And further, I wish to call to your attention that in preparing this discussion I was ever mindful of the amount of business transacted by this organization, and I tried to be as brief as was consistent with clarity of the thoughts I was endeavoring to express.

MEDICAL MANAGEMENT OF
UNCOMPLICATED PEPTIC ULCER

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Peptic ulcer is a chronic disease characterized by remissions and exacerbations; it may be arrested, but seldom cured. In the past therapy has been directed toward the symptoms which occur during an exacerbation, but the patient was forgotten throughout the period of remission. Therapy has consisted of drugs to relieve certain symptoms thought to be etiologic of this disease. During the past few years it has been recognized that the cause is still unknown, and treatment has been instituted to alleviate the underlying factors rather than the symptoms.

Since the outbreak of World War II the incidence of peptic ulcer has supposedly been on the

increase. According to Hurst,¹ gastric disorders were rare among soldiers during the First World War. Kantor² reported that peptic ulcer ranked high as a cause of disability for military service, and claimed that it led all other digestive diseases as a cause for discharge from the regular army. During the first eighteen months of this war, Brockbank³ saw 931 consecutive patients with dyspepsia, of whom 42.5 per cent had peptic ulcer. Chamberlin⁴ found that 31.0 per cent of patients with gastro-intestinal complaints had peptic ulcer. These men had an average of 5.5 months of army service before symptoms necessitated hospitalization. He concluded that persons with peptic ulcer were unfit for military service. According to Walters and Butt,⁵ 1,352 patients with peptic ulcer were admitted to thirteen U. S. Naval hospitals from December 1, 1940, to December 1, 1942. Of this group 1,249 were treated medically and only 103, surgically.

In contrast to the statistics in the armed forces, the incidence in the civilian population fluctuates considerably. Hinton,⁶ in reviewing the case histories at Bellevue Hospital in New York, found, over a twenty-two year period, a yearly variation from 0.09 per cent to 0.66 per cent of the total admissions. Gordon and Manning⁷ examined the results of nearly 30,000 autopsies which were performed at the Philadelphia General Hospital over a seventeen year period. Peptic ulceration was encountered in 548 autopsies, or 2.75 per cent; the incidence in males was twice that in females. An increase from 0.0444 per cent per 100,000 admissions to 0.0614 per cent per 100,000 admissions was found at Charity Hospital in New Orleans from 1929 to 1938.⁸ In a group of 14,000 employees of the Metropolitan Life Insurance Company, during the years 1927 to 1936, the incidence of ulcer was reported as being 1.4 per cent.⁹ In industry, 18.6 per cent of absenteeism resulted from gastro-intestinal diseases, and, in this group, 8.6 per cent was caused by peptic ulcer.¹⁰ After a comprehensive review of the literature, Patterson¹¹ concluded that approximately 12 per cent of all persons in America have peptic ulcer at some time in their lives. Although this figure is extremely high, it is substantiated by Palmer,¹² who commented that autopsy studies indicate that peptic ulcer occurs at some time in at least 12 per cent of all adults. Robertson and Hargis,¹³ in a post-mortem study of 2,000 cases, found evidence of healed or active duodenal ulceration in 11.85 per cent.

The high incidence reported by both Patterson and Palmer has never been observed at the University Hospital. For the years 1942 and 1943 the incidence of peptic ulcer was 1.4 per cent and

1.5 per cent of the total admissions. Our statistics are more in accord with the civilian statistics from the East and South. In a general hospital such as the University Hospital, the total admissions comprise patients of all ages and both sexes. Peptic ulcer is more common in males and in adults, which may account for the difference of incidence between civilians and soldiers.

The increase in peptic ulcer has been attributed to the stress of the times, our mode of living, the war, diet, and many other similar factors. A cursory glimpse at the statistics would bear this out. During the First World War the diagnosis of gastro-intestinal disorders was in its infancy, and only an occasional army camp possessed roentgenographic equipment. Later, other methods of diagnosis, such as gastroscopy, were introduced, increasing our interest in this disease. It is possible that peptic ulcer has been occurring at the same rate in the general population, but was not being recognized. An editorial, published in 1894, stated: "Among the diseases to which times of great business depressions have a causal relation are all those derangements of the alimentary canal and of nutrition which are the result of insufficiency or improper quality of ingesta."¹⁴ Gastro-intestinal diseases have always played a prominent rôle in wars.¹⁵ During the Revolutionary War the soldiers suffered heavily from typhoid and dysentery; during the War of 1812 dysentery was the commonest disease; and in the Mexican War, dysentery and yellow fever were the chief causes of disability. In the Civil War diarrhea and dysentery caused the greatest number of deaths; the Union army had a death rate of 10.37 per thousand. In the Spanish-American conflict the death rate from these diseases was 1.9 per thousand, but in the First World War, this figure fell to 0.08 per thousand. One can speculate upon the number of cases of undiagnosed peptic ulcer which masqueraded as dysentery.

The diagnosis of this disease must be well substantiated before any treatment can be instituted. The diagnosis is made from the history, roentgenologic examination, gastroscopic examination, gastric analysis, and the finding of occult blood in the stools. The trend has been to rely primarily on roentgenologic examination, and to treat roentgenograms rather than patients. There is no laboratory procedure that can replace the taking of a good history. A thorough review of the patient's complaints will often not only suggest the diagnosis, but, what is of more importance, will uncover the underlying factors precipitating or aggravating the symptoms. A detailed study must be made of the pain of which the patient complains. The points to be particularly noted are:

character, severity, localization or extent of diffusion, situation including depth from the surface, paths of radiation, frequency, special times of occurrence, and aggravating and relieving factors. If we proceed in this manner, the diagnosis can often be made without resorting to laboratory procedures which are either costly or not available. The patient with a peptic ulcer usually has a long history. At first he notices a slight amount of epigastric distress which comes on in the spring or fall of the year, and is relieved by taking food. This may recur for two or three days, and then the symptoms may terminate spontaneously. A few years later he may have the same distress again, it occurs at the same time, but may last a little longer than it did the first time. These attacks occur at more frequent intervals until, finally, either during the fall or spring of some particular year, the distress becomes more severe, and with it there are constipation and, probably, some nausea and vomiting. Until this time the pain has been dull, burning, and not very severe; it is well localized in the epigastrium, and does not radiate. It recurs at regular intervals during the day. It may be precipitated by working, worry, or constipation, and may be relieved by taking food, belching, or vomiting. At first the periods of remission are long, lasting sometimes for years; later the periods of remission are shorter. At this time only a provisional diagnosis of peptic ulcer can be made, for the above symptoms occur, also, with almost any disease. If this patient now develops a complication, we are sure that he has a peptic ulcer. The complications are the severe pain of partial perforation, severe pylorospasm causing temporary pyloric obstruction, hemorrhage, true perforation, or alkalosis. If the history indicates that one of these complications occurred at a time when the patient was having distress, one can be reasonably certain that the disease is organic, and that it is a peptic ulcer.¹⁶

Fractional analysis of the gastric contents, which is a simple procedure, is often an aid in diagnosis. When this laboratory procedure is placed in the hands of a technician, the most valuable parts are lost; namely, the time it takes for the stomach to completely empty itself, and the reaction of the patient. Peptic ulcer patients, as a rule, have a higher degree of free acid than normal persons. When the ulcer is active, little difficulty is encountered in obtaining specimens, for the stomach is continuously secreting both acid and non-acid fluids. When spasm is present, the stomach will not be empty at the end of one and one-half hours, but acid fluid may be obtained two or more hours after the motor meal has been given. The amount of acid and the volume of the secretion will be less

after treatment has been instituted. Another important part of the gastric analysis is the estimation of the total amount of residuum in the stomach after an all-night fast. Normal persons will ordinarily have not more than 75 cubic centimeters of opalescent material in the stomach, whereas a patient who is still having symptoms may have 200 to 300 cubic centimeters of residual material. The man with a peptic ulcer is a highly sensitive, irritable fellow who bolts a stomach tube in much the same way that he eats his daily meals. Although he may object to the examination, he will swallow a tube of any size without much difficulty.

Gastrosopic examination is a fairly recent addition to the diagnostic aids in the differentiation of gastro-intestinal diseases. By this means one can ascertain whether a gastric ulceration is malignant or benign and, if benign, whether it is progressing or healing.¹⁷ Duodenal ulcer can be diagnosed by indirect evidence, such as distortion of the pyloric end of the stomach, marked spasm of the antrum, hypersecretion, gastritis, and, particularly, the presence of pigment spots. Tuman and Lieberthal¹⁸ studied the gastrosopic observations in 50 cases of duodenal ulcer and found that 33 of the patients had chronic gastritis, 16 were normal, and one showed an unclassifiable inflammatory change. They state that the gastritis was superficial in 11 cases, hypertrophic in 17, and atrophic in five. In the course of nearly 2,000 gastrosopic examinations, many of which were performed in cases of proved duodenal ulcer, we have not observed such a high incidence of hypertrophic gastritis, and have seen atrophic gastritis in only one or two cases. Atrophic gastritis occurs commonly in association with malignancies of the stomach and anemias, particularly pernicious anemia. In the presence of an active duodenal ulcer, spasm of the stomach is often encountered. During spasm the gastric mucosa takes on, at times, the appearance of hypertrophic gastritis. Schindler¹⁹ claims that this is the so-called "areolae gastricae" (sic)* which are observed in surgical and postmortem specimens. We have reexamined many of these patients after they were under treatment, and have found that the stomach was relaxed, and with no evidence of the cobble-stoning which denotes hypertrophic gastritis. The repeated mentioning of a high incidence of hypertrophic gastritis by other workers leads us to believe that this diagnosis is made more often than is justified.

We have found that pigment spots occur more often in duodenal ulcer than in any other type of

*Dorland's dictionary speaks of "gastricus" as a Latin word, but it is not to be found in Freund's comprehensive Latin-German lexicon. The Romans borrowed "gaster" from the Greek, so that one might properly construct the hybrid "areolae gasteris," which preserves the root of our "gastro-."

gastro-intestinal lesion.²⁰ This is in accord with Schindler,²¹ but in disagreement with Ruffin and Brown,²² who claimed that the hemorrhagic, or pigment, spots may be produced by aspirations of the stomach and may occur in healthy persons. It is true that aspiration or the presence of irritants in the stomach may produce small areas of hemorrhage, but not the pigment spots which occur with duodenal ulcer. Pigment spots are always small black areas which appear to be within the mucosa, and look more like retinal petechiae. The traumatic hemorrhages are either irregular or bleeding at the time of the examination, and appear on the surface of the mucosa.

Examination of the feces should not be forgotten in cases of suspected peptic ulcer. This can be made part of the routine physical examination; the particles of feces which adhere to the gloved finger after rectal examination can be washed off with a few cubic centimeters of water and a chemical test for occult blood performed. A daily loss of blood from the upper portion of the intestinal tract of as little as 10 cubic centimeters may result in a positive test for occult blood in over 40 per cent of cases.²³ Schiff²⁴ and his collaborators examined the feces of normal subjects after the ingestion of citrated blood in amounts up to 2,000 cubic centimeters. Tarry stools appeared when subjects were given as little as 200 cubic centimeters, and the number of bloody or tarry stools was not directly related to the amount of blood in the stomach. Positive chemical tests for occult blood may persist for a long as ten days after the ingestion of 250 cubic centimeters of blood.

Ulceration of the upper intestinal tract can be produced in animals by many means. Histamine, cinchophen, aspirin, caffeine, a rough diet, a vitamin-deficient diet, interference with blood supply, and many other methods have been used to produce experimental ulcer in various animals from the rat to the dog. Other groups of workers, particularly the clinicians, have felt that the high acid content of the stomach resulted in ulcer, but this work has been recently discredited. Schiff²⁵ and Warren²⁵ showed that experimental ulceration could be caused in the cat's intestine only with hydrochloric acid in combination with pepsin. They state that perfusion with acid and pepsin resulted in damage to the stomach in the region of the lesser curvature, and profuse ulceration of the duodenum. In a recent editorial, Wilensky²⁶ states, "It is idle to think that the highly acid content of the stomach, or its excessive secretion, is the cause of ulcer. One could just as easily say that the effusion in a tuberculous joint, or the pleural cavity, is the cause of the tuberculous infection." He further states, "It is a fact that the only

experiment in which the making of a true ulcer is successful frequently occurs in the human subject and follows efforts at a surgical cure, especially gastroenterostomy, when a gastrojejunal ulcer ensues."

In addition to the marginal ulcer which occurs in man, one may see a benign lesion of the stomach or duodenum after an injury to the brain.²⁷ This injury is thought to be mediated through the hypothalamic nuclei. Oppen and Zimmerman²⁸ reported a group of 22 cases in which there was either ulceration, erosion, or malacia of the upper digestive tract. The brain lesions were located as follows: the nuclei of the interbrain, in 16 cases; the mid-brain, in two cases; and diffuse cerebral, chiefly cortical, involvement in three instances. Davidoff²⁹ reviewed postmortem protocols in over a ten-year period at the Brooklyn Jewish Hospital, and found that of 81 cases in which autopsy revealed esophageal, gastric or duodenal lesions, 28, or 34.5 per cent, also showed brain lesions. In 12 cases, or 14.8 per cent, the brain and gastro-intestinal lesions were of such a character that they could reasonably be related to each other.

If we knew the factors which precipitate or cause the pain of peptic ulcer, specific therapy could be instituted against the mechanisms of pain production. Because acid is so easily found in the stomach, earlier investigators did the most of their work with this substance, and concluded that it must be responsible for all the disorders of the stomach and duodenum. Palmer,³⁰ attempting to reproduce the pain of peptic ulcer, administered 200 cubic centimeters of 0.5 per cent hydrochloric acid solution into the stomach by means of a Rehfuß tube. If pain was not reproduced within thirty minutes, another 200 cubic centimeters was added, and, in some instances, this had to be repeated a third time. He found that, in normal subjects, pain was not produced by the administration of acid. If an ulcer was present, he was able to cause pain 324 times out of 404 attempts. The failures occurred in people whom he claimed were having a "distress-free period." It is evident from the above results that, unless the pain is occurring spontaneously at frequent intervals, it is not possible to induce it by the repeated administration of 200 cubic centimeters of 0.5 per cent hydrochloric acid solution. We have found, experimentally, that hydrochloric acid inhibits the secretion of the parietal cells—an observation which has been proved experimentally in dogs by Wilhelmj.³¹

The importance of increased gastric tension in the production of distress was emphasized by Hurst.³² He concluded from an experimental and clinical study that the mucous membrane of the stomach is insensitive to stimulation from dilute

hydrochloric acid and dilute organic acids. Wolf and Wolff³⁸ have recently reaffirmed these observations in their excellent monograph on human gastric function. The importance of increased tension in the production of visceral pain was stressed by Ryle.³³ Many workers,³⁴ employing the balloon method, have observed that pain in gastric and duodenal ulcer is synchronous with the occurrence of strong contraction waves, and have been unable to correlate the appearance of pain with gastric acidity.

In studying the mechanism of epigastric pain, Smith and Miller³⁵ demonstrated in dogs that inflation of the colon with air, or the introduction of croton oil into the gallbladder, reflexly caused an increase in gastric tension, gastric peristalsis, and pylorospasm. Extending this study to man, Smith and his coworkers³⁶ were able to demonstrate a reflex mechanism between the colon and stomach. Stimulation of the colon was manifested by an increase in gastric tone, particularly of the pyloric region, and an increase in peristaltic activity. Pain appeared to be coincidental with the change in tone and the passage of a peristaltic wave over the pyloric end of the stomach. In those instances in which epigastric distress was not induced by stimulation of the colon, no significant changes were demonstrated in the stomach. These changes could be abolished by large doses of atropine.

Smith and Paul³⁷ showed that the distress in peptic ulcer, like that produced by inflation of the colon, could be initiated by increasing intragastric pressure. This distress, whether it occurred spontaneously or was experimentally induced, could invariably be terminated by decreasing intragastric pressure or tone, or with large doses of atropine. The amount of free acid had little or no effect on the production or relief of pain. Wolf and Wolff,³⁸ by direct observation through a gastric fistula, noticed that unusually vigorous contractions of the stomach induced pain, and that these contractions were inhibited by atropine. Hamilton and Curtis³⁹ demonstrated hypermotility of the human stomach by the balloon and kymograph method during the appearance of "gas-pains," biliary colic, and "vago-tonia." In all cases, gastric hypermotility occurred simultaneously with varying degrees of distress or discomfort. Atropine abolished this distress by causing a loss of tone and what was practically a cessation of peristaltic waves in the stomach. The conclusions arrived at by these investigators were the same as those reported many years ago by the Iowa group. Eusterman,⁴⁰ one of the editors of the Year Book of General Medicine, commented on the article of Hamilton and Curtis as follows: "To stress the significance of hypermotility of a hollow viscus is a relatively new departure in

medicine. The authors herewith present a somewhat novel, and, perhaps, neglected, or heretofore unrecognized aspect, of abnormal gastro-intestinal function, giving rise to disturbances demanding correction."

Peptic ulcer is, at present, regarded by many as a psychosomatic disease. This was well recognized by Charles Darwin, who himself suffered from an ulcer, when he wrote to one of his friends: "Adios, my dear Hooker; do be wise and good, and be careful of your stomach, within which, as I know full well, lie intellect, conscience, temper, and the affections." Westphal⁴¹ noted an etiologic relationship between neurosis and ulcer. In order to prove this relationship, Winkelstein⁴² carried out psychiatric examinations on 33 young men with peptic ulcer. He found chronic frustration and inward direction of repressed, strong, emotional stimuli, with strong masochistic and sadistic tendencies. The high percentage of therapeutic failures in cases of gastro-intestinal disease was thought to be due to a lack of recognition of the psychobiologic disturbances. Portis⁴³ states that gastro-intestinal symptoms are, in the majority of instances, due to disturbed function resulting from altered emotional stimuli. That psychosomatic influences may possibly represent an etiologic factor in the production of duodenal ulcer was noted by Morrison.⁴⁴ That these may be operative is stressed by Dunn,⁴⁵ who states that the frequency of gastro-duodenal disorders may be partly due to prolonged tension in men who have been mobilized for war, but who have little opportunity of carrying off emotions in combatant activity. This is substantiated by Wade,⁴⁶ who states that, in his comparison of men on active service in the Royal Navy with reserves and "hostilities-only" personnel, the ratio of men with dyspepsia in the two groups was found to be 1 to 3.7. Magnes⁴⁷ described the relationship of emotion to gastro-intestinal symptoms adequately when he said, "A common digestive complaint in the ETO (European Theater of Operations) was vomiting. Forty-five per cent of the outpatients had this complaint. This symptom alone was present in five per cent of the cases. Compared to the prevalence of the symptom in the hospitals of the zone of the interior, it was greater in this theater of operations. The probable factor in producing this symptom was the tension of the preinvasion period. Contributing and probably precipitating factors were the field rations and the psychologic effects of the mess kits. Occasionally men were seen in the 'chow line' with dishes instead of mess kits. On being questioned, they admitted that they vomited when eating from mess kits." Lahey⁴⁸ goes so far as to state:

"There is not any doubt in my mind that, if one could frighten people before they are faced with a catastrophe and get them to adjust their habits, —then I think, probably, one could do a great deal as relates to the prophylaxis of an ulcer."

From the foregoing it can be seen that persons with peptic ulcer have primarily a psychogenic disturbance which results in somatic disease. The mental and emotional changes do not develop in adult life, but probably represent a familial or hereditary tendency. Any therapy directed toward the alleviation of the psychosomatic disorders depends on obtaining a complete history, usually dating back to the patient's childhood. A complete discussion of the diagnostic points to be sought will be found in Dunbar's book,⁴⁹

gotten in the heat of the argument as to whether peptic ulcers should be treated medically or surgically. Smith and Rivers⁵¹ included the following groups among those who should receive medical treatment: (1) All with uncomplicated duodenal ulcers, especially those of short duration; (2) All younger patients, thirty years of age, or less, if at all feasible; (3) Usually the older patients who have more chronic, uncomplicated duodenal ulcers, especially if the symptoms are mild or infrequent, not progressive, and do not interfere seriously with the efficiency of the patient; (4) Aged patients with duodenal ulcers, especially those who have other organic disease, such as active pulmonary tuberculosis, angina pectoris, diabetes mellitus, advanced nephritis, decompensated heart disease, or obesity; (5) Definitely psychoneurotic patients with duodenal ulcer; (6) Hyperirritable patients with rapidly emptying stomachs; (7) Patients who refuse operation even if it may be indicated, and (8) women patients whose ulcers are not complicated by extragastric disease, such as gall stones. With the exception of the last statement (number 8), we are in accord with the above indications. When cholelithiasis occurs in the presence of a duodenal ulcer, surgical intervention may be required, but the ulcer, unless complicated by hemorrhage, perforation, or intractable pain, can be treated medically. Unfortunately, it is true that 90 per cent of all duodenal ulcers which lend themselves to control by medical measures are inadequately treated.⁵²

The actual management of a peptic ulcer will be discussed under the following headings: (1) Psychotherapy, (2) diet, (3) regulation of habits, (4) sedatives, (5) antispasmodics, and (6) antacids. The proper approach in treating a patient is not to berate him, but to flatter him. Anyone who is reproached for having developed symptoms will become antagonistic, and will pay little or no attention to instructions. The first step in psychotherapy is to impress upon the subject that an ulcer can be arrested, but seldom cured. This can be done by simple diagrams of the gastric and duodenal silhouette, showing the ulcer scar, by elementary physiologic facts, such as reflex pylorospasm, or any other method that is appropriate at the time. "Why do you have the ulcer?" is a question we put to the patient. The following is an excerpt from a stock lecture we give: "Because you are fortunate enough to be born with a high-strung nervous system. Most of the great thinkers, musicians, artists, and scholars have had this type of nervous system. It is an asset in any type of work, but, like most good things, it has its drawbacks, one of which is a tendency to an

Year	Medical Data	Illness	Social Data	Age
1900			Born in Iowa	0
1905				5
1910				10
1915				15
1918	Nausea and vomiting		Finished high school Father would not let him attend college.	18
1919				19
1920	Vague distress		Wanted to farm by himself	20
1921	Vague distress			21
1922	Vague distress			22
1923	Vague distress			23
1924	No distress		Married and bought farm in Missouri	24
1925				25
1926				26
1927	Started to vomit with distress; Had appendectomy with- out relief		Dry weather, poor crops, difficulty in keeping up payments on mortgage	27
1928				28
1929				29
1930				30
1931				31
1932				32
1933	Distress			33
1934	Vomiting with distress			34
1935				35
1936	Better		Returned to Iowa, rented farm	36
1937				37
1938				38
1939				39
1940			Bought farm	40
1941	Slight distress with heavy work			41
1942				42
1943	Distress with heavy work		Unable to hire help	43
1944	Distress, pain and vomiting		Trying to increase farm, but cannot hire help	44

TABLE I

Psychosomatic Diagnosis. Cobb⁵⁰ has described a simple method of history taking, in which the medical data are prepared against the social data, showing how the two may coincide. Table I represents such a history; it shows that the somatic complaints usually follow the psychic upsets. The patient had a duodenal ulcer (proved roentgenologically), and obtained excellent relief from psychotherapy, diet, and sedatives.

The indications for surgical treatment of the complications of peptic ulcer have been well established, and can be found in any textbook of medicine or surgery. The indications for medical management, on the other hand, have been for-

overactive gastro-intestinal tract." It will be noted that we are flattering the patient, making him realize that, because of his psychogenic make-up, he is ambitious and willing to accomplish things. The patient must be made to understand that the nervousness is not of recent origin, but dates back to his childhood, and may be a familial tendency. When he realizes that the symptoms, particularly the hyperirritability, were developed through no fault of his own, he is willing to speak more freely and will be anxious to volunteer the psychosomatic history. The coincidence between the psychic precipitating factors and the somatic distress is discussed next. As illustrated in Table I, it could be pointed out to the patient that whenever he had financial difficulty or had an important decision to make, nausea and vomiting resulted. The precipitating factors, as a rule, are not as clear-cut, but may merely be that the patient had to work harder. Most patients, by this time, begin to make a game of this, and soon can remember what was responsible for their recurrences.

Anxiousness to overcome the relationship between the psyche and the soma follows its recognition, and the patient now asks many questions. It is a waste of time to tell anyone not to be nervous, particularly when the patient can cite as examples physicians who are more nervous than he. Again, we must stress the fact that he is not entirely responsible for his nervousness. (Could he prevent a drought, induction of his son into the Army, or a depression?) It must be made clear to the patient that he reacts more violently to external stimuli than do "his less fortunate brethren." When such conflicts arise, he must be able to recognize them, and should then see his physician, take sedatives, watch his diet more carefully, and, perhaps, even go to bed for a while. The other aids will be discussed later. If such warnings are heeded, the symptoms may be only mild or may never occur.

Should the patient take a vacation during a period of distress? We think not because we have seen many patients who have been made to take an enforced vacation become much worse than they would have been if they had stayed at home at their regular occupations. Normal habit is the basis of successful treatment, and daily occupation is our greatest habit. The attending physician takes a vacation only when he can go to a medical meeting or on a fishing trip with other doctors and talk shop. The farmer, unable to get away from the soil, enjoys fairs or auctions, where he can observe different breeds of animals and discuss a new type of hybrid seed. Women, when they go visiting, like to exchange recipes and dress patterns. Why, then, remove a man from his

accustomed daily environment and send him where he is a stranger and can do nothing but think of himself and the problems he left behind?

A patient asks if he should change his occupation and receives much the same answer. It takes less mental and physical effort for a farmer to do his daily chores than to work eight hours in a factory as a machinist. It is only in rare instances that a man need change his occupation. Should the patient concentrate on combating his nervousness? It would be much better to direct his attention and energy to outside interests, for, in trying to overcome the nervousness, he makes matters worse by irritating the source. A patient can understand an example such as the following. A factory worker has had an argument with his foreman, fears that he might lose his job, and cannot sleep. As he tosses in bed, he listens to the constant drip from a leaky faucet. When he complains that the noise made by the dripping water is keeping him awake, he is informed that the faucet has been leaking for months. Was it the leaky faucet or the fear of losing his job which produced insomnia? Sir Joshua Stamp might well have been thinking of the patient with peptic ulcer when he wrote: "He is a happy man who has simplified his tastes to the point where a good book and a free and quiet evening are for him, not a chore, or a sign of increasing age, but a preference and a badge of wisdom and distinction."

The presence or absence of distress is determined, not by what the patient eats, but the form in which the food is ingested. Sea sand (silicon dioxide) would cause considerable distress, whereas magnesium trisilicate, a fine powder, is used to alleviate gastric discomfort. Charles Dickens described the relationship between diet and the psychogenic disorders of the gastro-intestinal tract. The ghost appeared before Scrooge and asked, "Why do you doubt your senses?" Scrooge replied, "Because a little thing affects them. A slight disorder of the stomach makes them cheats. You may be a piece of undigested beef, a blot of mustard, a fragment of an underdone potato. You see this toothpick?—I have but to swallow this, and be for the rest of my days persecuted by a legion of goblins, all of my own creation. Humbug, I tell you! Humbug!"

To ensure adherence to a diet over a long period of time, be it prescribed for peptic ulcer or some other disease, the physician must know a few facts about the patient; namely, religion, race, community, and economic status. Orthodox Jews cannot have meat, butter, and milk during the same meal, and, having eaten meat, must wait an

TABLE II
ESSENTIALS OF THE DAY'S FOOD FOR AVERAGE ADULT*

Daily Standard			Protein 1 gm. per kilo	Ca. .8 gms.	Iron 12 mg.	Vit. A. 5000 I. U.	Thiamin 1.5 to 2.0 mg.	Riboflavin 2-3 mg.	Ascorbic Acid 75 mg.	Vit. D. 400-600 I. U.
Food Items	Measure	Wt. gms.	gms.	gms.	mg.	I U.	mg.	mg.	mg.	I. U.
Milk	1 pint	480	15	.6	.15	528	.264	1.0	6.0	
Meat, fish or fowl	One serving	75	15	....	3.1	50	.17	.23	.....
Eggs	Two	100	15	.06	2.9	1400	.15	.33	.....
Cheese	1 $\frac{1}{2}$ " 2 cubes	50	15	.46	.7	1300	.05	.24	.....
Leafy Vegetables	Two servings	200	....	....	4.1	2200	.22	.30	40.0	
Citrus fruits or tomatoes	One serving	100	....	....	.4	250	.10	.05	35.0	
Potatoes	One serving	150	7	....	1.3	55	.18	.08	25.0	
Fruits—all kinds	One serving	100	....	....	.6	250	.08	.06	15.0	
Whole grain Cereal and Bread	Three servings	100	9.5	....	1.0	....	.30	.103	.....
Butter	1-1 $\frac{1}{2}$ oz. 4 cubes	45	....	....	....	900	.....	.....	.....
Cod liver oil	1 tsp.	....	....	....	....	....	.....	.....	.....	satisfied
TOTALS	.....	.....	70.0	1.12	14.25	6933	1.51	2.39	121.0	

Satisfactory substitutions for cheese: cooked navy beans, 1 cup
cottage cheese, $\frac{1}{2}$ cup peanut butter, 3 $\frac{1}{2}$ tbsp.
lean pork, 1 serving milk, 1 pint liver, 1 serving

*From Department of Nutrition, University Hospitals.

hour before consuming dairy products. Catholics have their days of fast and abstinence. Different races eat different types of foods, and food habits vary between rural and urban communities. Physicians who resort to shock diet lists forget to eliminate from them the foods that are unobtainable in the locality, or are outside the patient's budget. Examples are artichokes, persimmons, avacados, kumquats, okra, certain seafoods, and such things as Bavarian cream. The diet must be positive rather than negative; a patient must be told what to eat as well as what to avoid.

Adherents of the Sippy technic⁵³ have always insisted upon frequent feedings, whether the patient is hospitalized or not. The value of this method has been questioned by many workers because it is not adaptable to the ambulatory patient and may result in an increase in gastric secretion and motility. Alley⁵⁴ was able to show that repeated feedings of cream increased the acidity and volume of gastric juice. She demonstrated that, when the cream feedings were accompanied by the administration of alkaline powders, both

the acidity and peptic power increased. On the other hand, the continuous drip method introduced by Winkelstein⁴² does not result in stimulation of the parietal and chief cells, and should be used when very active treatment is indicated. One patient, who was seen recently at the University Hospital, is of interest in view of the observations of Alley. This seventeen-year-old girl was a licensed cream taster, and had been employed in this capacity for the preceding twenty months. She estimated that she drank several pints of cream a day. After sixteen months of grading all of the cream processed in the creamery, by means of tasting, she developed ulcer symptoms. The presence of a duodenal ulcer was proved roentgenologically. The distress abated after she discontinued her work and was given a simple general diet, psychotherapy, and antispasmodics.

Supplemental vitamins are felt to be necessary in any diet prescription. That this is not true can be seen in Table II, which outlines the vitamin content of the essential foods. Another mistaken idea concerning diets is that man must consume

TABLE III
RECOMMENDED DAILY ALLOWANCES FOR SPECIFIC NUTRIENTS
Committee on Foods and Nutrition, National Research Council

	Calories	Protein grams	Calcium grams	Iron mg.	Vitamin A I. U.	Thiamin (B ₁) mg.	Ribo- flavin mg.	Nicotinic acid mg.	Ascorbic acid mg.	Vitamin D I. U.
Man (70 Kg.)										
Moderately active	3000	70	0.8	12	5000	1.8	2.7	18	75	
Very active.....	4500	....	.....	....	.....	2.3	3.3	23	.....
Sedentary.....	2500	....	.....	....	.....	1.5	2.2	15	.....
Woman (56 Kg.)										
Moderately active	2500	60	0.8	12	5000	1.5	2.2	15	70	
Very active.....	3000	....	.....	....	.....	1.8	2.7	18	.....
Sedentary.....	2100	....	.....	....	.....	1.2	1.8	12	.....
Pregnancy (latter half).....	2500	85	1.5	15	6000	1.8	2.5	18	100	400-800
Lactation.....	3000	100	2.0	15	8000	2.3	3.0	23	150	400-800

calories. This country has been on a caloric debauch for many years, and, despite all the arguments of the insurance companies, dietitians, and physicians, people are still overeating. For the recommended daily allowances see Table III. We prefer the so-called simple general diet because it is adaptable to Iowa, which is primarily a rural community. The only addition to this is a glass of whole milk between meals and at bedtime. These extra feedings are eliminated if they add to the distress. This diet is easily prepared, is well within the budget of the average person, and is even within the limits of wartime rationing. The patient should learn by experience to eliminate the foods which cause distress. Vitamins are prescribed only when the patient cannot eat, or when the amount of food taken is found to be deficient in one or more of the vitamins. The simple general diet, as outlined in Table IV, has ample carotene and vitamin A, but contains no more than the necessary amount of B-complex. In a large hospital the dietary instruction is usually left to the dietitians. We believe the patient would be more impressed with diet instructions if he obtained them from the examining physician.

Diet instructions include not only a list of the foods to be eaten, but how to eat. The food must be chewed slowly and not swallowed in large pieces. During a gastroscopic examination of a patient with a duodenal ulcer, we found two prune seeds within the stomach. This patient insisted that he had not eaten prunes for the past four months, and denied swallowing the seeds. The ulcer patient is noted for bolting his food. For him, eating is automatic, and a chore to be finished as quickly as possible. He must be told to eat with both feet under the table, to take plenty of time, and forget his business worries or family quarrels for the time being. Meals should

be taken at regular intervals and, if possible, on a definite schedule. At no time should he overeat.

Constipation and the so-called irritable bowel syndrome may cause epigastric pain more frequently than the ulcer.¹⁶ All patients with peptic ulcer eventually develop constipation. The diet described in the preceding paragraph is the first step toward overcoming constipation and "gas." The simple physiologic act of defecation must be explained to the patient; he should be told that some people, all of them normal, have two bowel movements a day; some, one a day; some, every other day; and a few, less often than that. The urge to move the bowels occurs in the morning, usually after breakfast. He must be taught to go to the toilet each morning at the same time, and relax, rather than make a concentrated effort to move his bowels within a short time and then, failing, discontinue the effort. The daily habit and regular time for emptying the bowels is the simplest way to overcome mild constipation.

The establishment of a normal habit cannot be accomplished within a short time; unfortunately, it requires many weeks or months of constant repetition. We allow the use of a lubricant, preferably liquid petrolatum, in tablespoonful doses once or twice a day, only after the foregoing measures have proved insufficient. Liquid petrolatum will not cause a bowel movement if taken occasionally as a laxative, but must be taken daily. It softens the feces, thereby making the normal act of defecation easier. Too much of this substance will cause leakage and soiling of the clothes. If difficulty is still encountered, we resort to a combination of liquid petrolatum and agar agar, or the powdered gum preparations. We impress the patient with the fact that these are merely crutches, not a cure or replacement of his normal daily habit. Some physicians think that liquid

TABLE IV
SIMPLE GENERAL DIET*
APPROXIMATE VALUE

Protein 80 gms.	Calories 2400	Calcium 1.6 gms.	Iron 16 mg.	Vit. A 6700 I.U.	Thiamin 1.8 mg.	Riboflavin 2.5 mg.	Ascorbic Acid 100 mg.	Niacin 18 mg.
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Eggs: In any form except fried.

Cheese: Cottage cheese or other very mild cheese.

Meat: Lamb, roast beef, steak, chicken, fish, crisp bacon, ground beef.

Milk: At least one pint daily.

Butter, cream and sugar as desired.

Cereal: Farina, cream of wheat, rice, oatmeal, cornflakes or prepared rice cereals, cornmeals.

Bread: Enriched white bread—day old or toasted. Crisp white crackers or saltines, macaroni, spaghetti or noodles—in moderation.

The fruits and vegetables should be cooked.

Fruits: Cooked or canned: pears, peaches, apricots, applesauce, prunes, cherries. May include: Ripe peeled fresh pear, ripe banana, orange or grapefruit sections. Do not use fruits which have small seeds. Use the juice of at least one orange daily or one glass grapefruit juice or tomato juice.

Vegetables: No raw vegetables except lettuce. Cooked: String beans, peas, carrots, spinach, asparagus, beets, tomatoes, squash, sieved canned corn.

Avoid: Cabbage, onions, turnips, cauliflower, parsnips and broccoli.

Potatoes: White or sweet potatoes—well baked or mashed.

Soups: Cream soups and meat broth.

Desserts: Plain puddings as: rice, tapioca, bread, custard. Jello, ice cream, sherbet, junket. Sponge cake or angel food cake—without icing. Plain sugar cookies.

Coffee and tea, in moderation.

Avoid: Fried foods, spices, vinegar, pie, pastry, cakes; all raw foods except those listed above. No nuts, coconut, raisins, figs.

Do not use BRAN in any form.

SPECIMEN DIET

BREAKFAST

Orange juice
Farina
Cream and sugar
Soft cooked egg
Toast and butter
Milk
Coffee or tea

DINNER

Cream soup—crackers
Roast beef
Mashed potatoes and butter
Buttered peas
Bread and butter
Milk
Ice Cream

SUPPER

Two slices crisp bacon or ½ cup cottage cheese
Baked potato and butter
Bread and butter
Peach salad—no mayonnaise
Milk
Baked apple—no skin

Milk, eggnog, or milk shakes can be taken between meals and at bedtime.

*From Department of Nutrition, University Hospitals.

petrolatum interferes with the absorption of the fat-soluble vitamins; namely, carotene and vitamin A.⁵⁵ If this were true, we would see many cases of carotene and vitamin A deficiency. These deficiencies are extremely rare in adults. According to McCollum, et al.,⁵⁶ vitamin A appears to be satisfactorily utilized in the presence of liquid petrolatum, but the absorption of carotene is markedly diminished. When the vitamin is administered with large amounts of the oil it may be largely lost if the concentration of A is slight and that of the oil is great. There is little evidence of such loss when the oil and the vitamin are given separately. The diet we have outlined contains ample amounts of both carotene and vitamin A, and the amount of mineral oil prescribed is comparatively small. Enemas are the best immediate means of relieving constipation, and may be taken as often as every third day, if necessary. We agree with Alvarez that the simple saline (physiologic salt solution) enema is superior to the types ordinarily used. We have studied the effect of vitamin B-complex upon constipation by comparing the results obtained in two series of cases, in one of which we gave, in addition to the simple

general diet, moderate amounts of B-complex. Both groups comprised about 200 patients, similar in age, sex, and duration of symptoms. The results were obtained by the questionnaire method, and were as follows: Of those who did not receive vitamin B, 3 per cent were completely relieved, 73 per cent were improved, and 24 per cent showed no change; whereas, of those who did receive the vitamin complex, 15 per cent were completely relieved, 80 per cent were improved, and only 5 per cent showed no change. Because of the results of this investigation we are now using vitamin B-complex as part of our anticonstipation regime. The patient is always warned against the use of laxatives, even the mild ones. Permitting this type of patient the use of a mild laxative encourages him to take one of the more drastic cathartics.

Alcohol has been regarded as both a stomacheic and gastric irritant. That it causes the stomach to secrete more hydrochloric acid was discovered as early as 1901 by Radzikowski,⁵⁷ and later confirmed by Babkin.⁵⁸ The gastric juice secreted after the ingestion of alcohol shows a higher concentration of pepsin than does that which is

secreted after the injection of histamine. Since alcohol is a powerful stimulant of the parietal cells, it is used as a routine motor meal in fractional analysis. The patient is usually told not to use alcoholic beverages, even during the periods of remission. On the other hand, Rehfuß⁵⁹ thinks that alcohol in excess of 10 per cent is a direct mucosal irritant, and below 10 per cent, a gastric stimulant. He states that, although there is no definite proof that alcohol in itself is capable of producing ulceration, its tendency to increase the appetite and to antagonize all those factors which we wish to control is sufficient reason why it should not be used by the person with an ulcer. Wolf and Wolff³⁸ found that alcohol need not be introduced directly into the stomach in order to stimulate the parietal cells. They noticed that placing alcohol directly into the stomach did not produce hyperemia or accelerated secretion until absorption had occurred. Since we think that alcoholic beverages are contraindicated, we advise against their use by our ulcer patients except in the presence of peripheral vascular or coronary artery disease.

With respect to tobacco, there are those who feel that its use may aggravate the symptoms of an ulcer, but we do not hold this opinion without reservation.^{51, 59, 60, 61} It is not unusual for the physician, in emphasizing the injuriousness of smoking, to gesture with a tobacco-stained finger or with a pipe. It is difficult for anyone to give up the tobacco habit, and it is extremely unlikely that a hyperirritable ulcer patient could stop smoking without adding another irritation to aggravate his nervousness. We feel that more relaxation will be derived from an occasional cigarette than from the sedatives which must be used to counteract the nervousness produced by abstinence from tobacco. Is not the entire question of the use of tobacco a personal one with the individual physician?

The proper administration of sedatives is important in the management of peptic ulcer. The most commonly used sedatives are phenobarbital, elixir of phenobarbital, sodium bromide, and the newer barbiturates such as nembutal and seconal, and elixir of amytal. Unfortunately, sedatives are ordered routinely, sometimes without specific directions as to use, and are given over a long period of time. Alvarez⁶² remarks pointedly, "I do not think we should keep them filled up with phenobarbital all day and every day. I permit a sedative only on a day when the colon is in an uproar." We tell the patient it is necessary that he get a good night's sleep, and this is best accomplished by regulating his habits. We never routinely hand the patient a prescription for phenobarbital, but suggest that, if he cannot quiet down by regulating

his habits, we can offer him some "crutches" in the form of sedatives. After we have made this statement he usually asks for the prescription, stating that he would like to have the medication handy should he need it. We have had the unfortunate experience of having patients, who were given routine prescriptions, return, wondering why medicine was given if the symptoms were entirely functional. The patient becomes convinced that he has some grave organic disease if he is given a lot of medicine. The patient who is having acute symptoms or is very nervous is given phenobarbital in a dose of one-half grain three times a day, with an extra dose at bedtime if necessary. Later, it is permitted only when he is unable to sleep or on the days on which he is mentally upset. It is never necessary to keep the patient drugged with sedatives. For those who suffer from insomnia we may continue the medication at bedtime for an extended period. This type of patient must be assured of sleep, because, otherwise, he fights his financial and social battles in the early morning hours. No better description of the value of sleep has been given than that in Don Quixote (Chapter 68). "Now blessings light on him that first invented this same sleep! It covers a man all over, thoughts and all, like a cloak; 'tis meat for the hungry, drink for the thirsty, heat for the cold, and cold for the hot. 'Tis the current coin that purchases all the pleasures of the world cheap; and the balance that sets the king and the shepherd, the fool and the wise man, even."

Now that the patient has been taught the use of sedatives and the value of sleep, the next addition to the treatment is antispasmodics. These drugs reduce gastric motility and reduce gastric secretion; they include syntropan, trasantine, papaverine, nitrites, and atropine. The only one which has found universal use is atropine. Sanozki⁶³ was probably one of the first to demonstrate that atropine inhibited not only the nervous phase, but also the chemical phase, of gastric secretion which resulted from the introduction of food into the dog's stomach. At the University Hospital it has been shown, over and over again, that atropine sulfate in a dose of 1/50 grain (0.0013 gram), given intravenously, always inhibits the motor activity of the stomach and reduces the intragastric tension and gastric acidity. This quantity of atropine is much greater than is used ordinarily in clinical practice. Babkin⁵⁸ reported that the effect of atropine on gastric secretion which is provoked by a meal is not as uniform in man as it is in the dog; it seems that, in man, the nervous phase is more easily suppressed by atropine than is the chemical phase. Hamilton and Curtis,³⁹ as mentioned before, were able to produce partial inhibition of gastric motil-

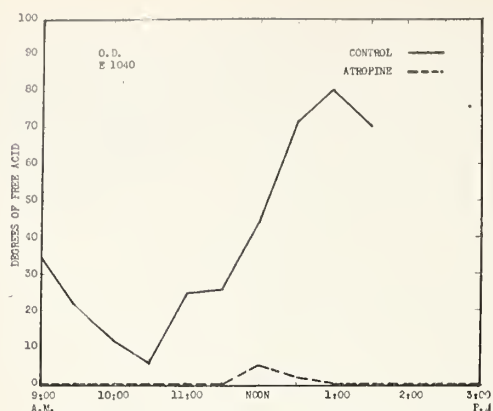


Fig. 1. THE EFFECT OF GIVING ATROPINE INTRAVENOUSLY ON GASTRIC SECRETION—Motor meal of 100 cc. of 7 per cent alcohol was followed by a steady increase of free HCl which reached a maximum of 80° in four hours. Two days later, 0.0013 gram of atropine sulfate was injected intravenously at the time the motor meal was given by stomach tube. Achlorhydria resulted and persisted for five hours, or until the stomach was empty.

ity, with relief from cramps and pain, by the intravenous administration of 1/150 grain of atropine sulfate. Some workers who think that this drug causes a marked reduction of mucous secretion, which prevents the neutralization of free acid and thereby effects a rise in acid concentration, have reported little or no reduction of titratable acid after its administration. Bastedo⁶⁴ called attention to this effect, and warned that atropine may not be a suitable drug to administer to the patient with peptic ulcer. Wolf and Wolff³⁸ found that doses of atropine varying from 0.0006 to 0.0024 gram inhibited gastric contractions, parietal cell secretion, and secretion of mucus, as well.

To ascertain the effect of atropine on gastric acidity, we selected a group of patients who had duodenal ulcer and a fairly high degree of free acid when alcohol was used as the motor meal. Fractional analysis was carried out in the routine manner after an all-night fast. The residuum was removed, and 100 cubic centimeters of 7 per cent alcohol was placed in the stomach. Specimens

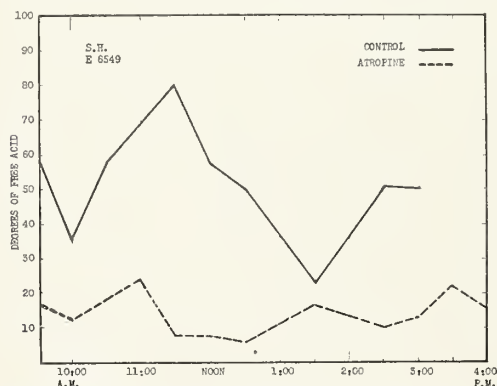


Fig. 2. THE EFFECT OF GIVING ATROPINE INTRAVENOUSLY ON GASTRIC SECRETION—Essentially as Fig. 1, except for the presence of a small amount of free acid until the stomach was completely empty after seven hours.

were aspirated every fifteen minutes until the stomach was empty. After the control curve was obtained, no treatment was instituted, and two days later the analysis was repeated. At the time the alcohol was placed in the stomach, 0.0013 gram of atropine sulfate was administered intravenously. In only one out of ten did atropine fail to cause an appreciable decrease in free acid. In the others there was a marked decrease of free acid; two had achlorhydria for several hours. Two typical cases are illustrated in Figs. 1 and 2; in one there was achlorhydria, and, in the other, a marked fall in acid, after atropine. The emptying time was not increased by the administration of atropine. These results were obtained with large doses of atropine sulfate. We repeated

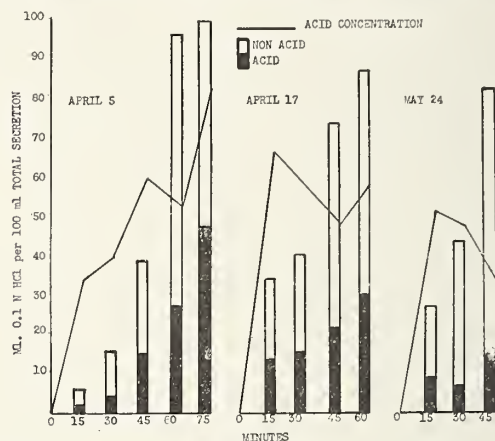


Fig. 3. THE EFFECT OF THERAPEUTIC DOSES OF ATROPINE AND SIMPLE GENERAL DIET OVER A PERIOD OF 50 DAYS—The subject received 1/100 grain of atropine sulfate orally, four times a day. The first analysis, on April 5, showed a typical duodenal ulcer curve; the high acid concentration resulted from secretion of a large amount of acid fluids. Analysis on May 24, showed a normal acid concentration and secretion of a larger volume of nonacid fluid. Emptying time and total gastric secretion decreased steadily throughout the experiment.

this study with the ordinary clinical doses of the drug over a long period of time on patients with peptic ulcer who were receiving a simple general diet, using the technic of fractional analysis recommended by Wilhelmj,⁶⁵ et al. Although this method allows us to estimate both the acid and nonacid fluid secreted by the stomach, it is too complicated for routine clinical use. The dose of atropine sulfate was 1/100 grain four times a day. The result of such an experiment is shown in Fig. 3. On April 5 there was a large amount of acid fluid which resulted in a high acid concentration, giving a curve of the ascending type. On April 17, twelve days later, the acid concentration was lower, and at this time the patient was discharged with instructions to continue the diet and atropine. On May 24 another test meal was given, and a normal curve for acid concentration was obtained. Throughout this entire experiment the patients received no other medication.

Impressed with the experimental results, we prescribed only antispasmodics, in addition to psychotherapy, diet, sedatives, and lubricants, for the patients admitted to the Medical Service. The results in this group were no different from those obtained on patients who received the same regime, plus antacids, on other Services. Recently Dick and Eisele⁶⁶ studied a series of peptic ulcer patients, some of whom received atropine, but none of whom received alkalis, and reported similar results. Atropine is a valuable drug because, as we have shown, it not only reduces intragastric tension and gastric motility, but also reduces gastric secretion. Unfortunately, many physicians, instead of using atropine, prescribe tincture of belladonna in minim doses. Aaron⁶⁷ points out that this is an unsatisfactory method of prescribing any liquid medicine for patients are usually told to take the same number of drops as the number of minims prescribed. He compiled a table (see table V) showing the number of drops of various liquid medicines which equal one cubic centimeter, and found that it requires fifty drops of tincture of belladonna to equal fifteen minims, or one cubic centimeter. If tincture of belladonna is prescribed, one should see that the patient has a minim dropper and knows how to use it. We feel that the average patient with an uncomplicated ulcer may require 15 minims of belladonna three times a day at first; this may be reduced to 10 minims, with an extra dose during the night if needed. We prefer atropine sulfate in tablet form because the dose cannot be varied and the patient finds it convenient to carry. It is prescribed in 1/75 to 1/100 grain doses, three or four times a day, and may be repeated during periods of distress. An observation worthy of note is that small doses of atropine may produce excessive dryness of the mouth in a normal person, but, should the same person develop a peptic ulcer, he can then tolerate much larger doses of atropine without showing any dryness of the mucous membrane.

After Sippy,⁵³ in 1915, published his famous work on the treatment of peptic ulcer with frequent feedings and alkaline powders, antacids became the basis of medical treatment. These drugs fall into two groups, the nonbuffer and the buffer

TABLE V
NUMBER OF DROPS OBTAINED FROM
STANDARD DROPPER
(after A. H. Aaron)
15 minims in 1 cc.

Liquid	Drops per cc.
Distilled water	22.2
Alcohol	50.0
Tincture of digitalis	50.0
Tincture of belladonna.....	50.0
50% solution of potassium iodide.....	28.0

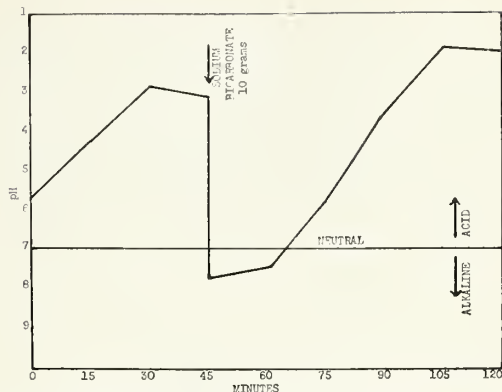


Fig. 4. THE EFFECT OF NONBUFFERING ANTACID ON GASTRIC SECRETION—Motor meal of 100 cc. of 7 per cent alcohol was given at the beginning of the experiment, and 45 minutes later the gastric contents had a pH of 3.1. Introduction of 10 grams of sodium bicarbonate in 50 cc. of water, by means of stomach tube, resulted in a pH of 7.8. Note marked secondary rise in acidity.

antacids. Included in the first group are such chemicals as calcium carbonate, sodium carbonate, sodium bicarbonate, magnesium carbonate, and magnesium oxide. These compounds react with an equivalent amount of acid to form a neutral salt, water, or carbon dioxide. When these drugs are given in a dose equivalent to the amount of acid present, a truly neutral solution results. A slightly larger dose causes an alkaline reaction in the stomach; the resulting alkalinity stimulates secretion by the parietal cells, and the secondary rise in acid thus produced is higher, at times, than the normal amount for that stomach. This secondary rise may often cause a recrudescence of symptoms. A typical curve, obtained when sodium bicarbonate was introduced into the stomach of a patient with peptic ulcer after a motor meal, is shown in Fig. 4. The gastric contents became alkaline and remained so for nearly thirty minutes, when the stomach began to secrete acid and formed more acid than had been present originally. The nonbuffer antacids not only produce a secondary rise in gastric acidity, but often cause alkalosis, which was a common occurrence during the Sippy era.⁶⁸ The carbon dioxide formed by the interaction of one of these preparations and hydrochloric acid increases intragastric tension, thus intensifying or precipitating the pain. Practically all patients, in taking sodium bicarbonate, experience relief only after they have belched or have felt the gas rumbling through the pylorus. Smith and Paul³⁷ studied, by means of the balloon and kymograph method, a man who was experiencing acute epigastric distress. At the beginning of the experiment, with a free acid of 49, he experienced mild pain. No free acid was present after the administration of ten grams of soda bicarbonate, yet the stomach became more active, peristaltic waves increased in size and frequency,

and the tone of the stomach increased. Because of the number of tubes in his esophagus, the patient was unable to belch, and the pain finally became so severe that it was necessary to restrain him so that atropine could be administered intravenously. Prompt reduction of gastric tone and motility, with cessation of activity, followed the administration

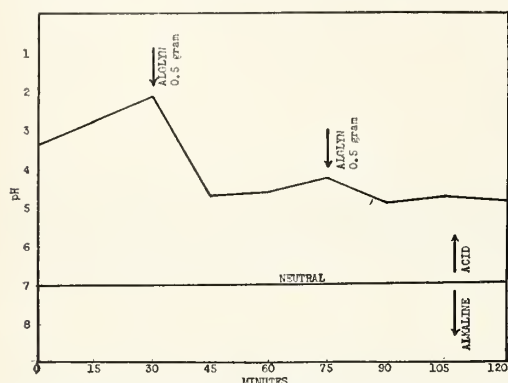


Fig. 5. THE EFFECT OF BUFFERING ANTACID ON GASTRIC SECRETION—After a motor meal of 100 cc. of 7 per cent alcohol, the pH of the gastric contents was 2.2. The pH was 4.7 fifteen minutes after the addition of 0.5 gram of Alglyn in 20 cc. of water. One-half hour later the addition of 0.5 gram of Alglyn caused no change in acidity. This demonstrates that excessive amounts of buffer antacids do not cause alkalinity.

of atropine. Throughout this entire period there was no free acid in the stomach.

Buffer antacids, instead of neutralizing the hydrochloric acid of the stomach, lower the degree of acidity by replacing the strong acids with weaker ones. Sodium citrate, sodium acetate, magnesium trisilicate, tricalcium phosphate, magnesium hydroxide, trimagnesium phosphate, the aluminum compounds, and mucin are included in this group. These chemicals reduce gastric acidity, but never cause alkalinity, and, even when given in excess, do not raise the hydrogen ion concentration above six. Sodium acetate, when added to the stomach, increases pH by forming acetic acid, which is much weaker than hydrochloric acid. When aluminum compounds are used, the acidity is reduced very slowly and never approaches neutrality. The administration of a second dose does not appreciably affect the acidity curve. (Fig. 5.)

Antacids can be further divided into soluble and nonsoluble drugs. That the soluble drugs can produce alkalosis was shown by Palmer.⁶⁹ The nonsoluble drugs exert their influence as long as they remain in the stomach, and, if given in excess, continue to buffer the acid as it is secreted. If alkalosis occurs in patients who are receiving these chemicals, loss of chloride must be taking place through excessive vomiting caused by a lesion such as pyloric stenosis. Adams, Clark, et al.,⁷⁰ have shown that aluminum hydroxide gel does not cause a secondary rise in gastric secretion, such as occurs with sodium bicarbonate. Opizzi⁷¹

feels that aluminum hydroxide, magnesium hydroxide, and magnesium trisilicate are the best antacids because they are well tolerated and their lasting effect prevents a secondary rise of gastric acidity.

Satisfactory results have been obtained with aluminum hydroxide gel in a dose of 30 cubic centimeters four times a day or as often as every hour, depending upon the symptoms. A few patients have complained of increasing constipation, and others have objected to the large amount of medicine which they are obliged to carry with them. The tablet form of aluminum hydroxide preparations has been tried; however, by means of gastroscopic examination, they were found to disintegrate very slowly, requiring twenty minutes in some cases.

A new aluminum preparation, a combination of aluminum with glycine, is being investigated.* This chemical, aluminum dihydroxyaminoacetate, (Alglyn), is prepared by the combination of aluminum isopropoxide and an aqueous solution of glycine.⁷² It is a white impalpable powder with a bland taste, and mixes easily with water to form suspensions which do not readily separate. At 25° C. the pH of the aqueous suspension is 7.4. The aluminum content of the compound is 18.3 per cent, and the nitrogen content, 9.3 per cent, whereas the aluminum content of the

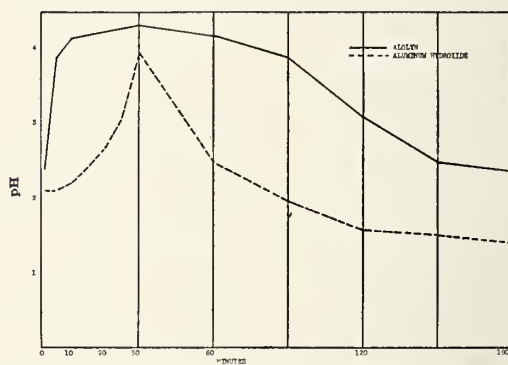


Fig. 6. COMPARISON OF BUFFERING ACTION OF ALGLYN AND ALUMINUM HYDROXIDE—0.913 gram of each substance was used. 25 cc. 0.1 N HCl were added to each initially, and every 30 minutes thereafter. $\text{Al}(\text{OH})_3$ was very slow in its action, while Alglyn buffered within five minutes and maintained a pH of 4.2 to 4.3 during the first thirty minutes. Throughout the experiment, Alglyn buffered more acid than did the $\text{Al}(\text{OH})_3$. Determinations were made at 20° C., the mixtures agitated continuously with an electric stirrer, and the pH obtained by means of a glass electrode.

ordinary aluminum hydroxide gel is 34.6 per cent, a factor which may well account for its constipating effects. Alglyn was compared with aluminum hydroxide as to buffering action. To 25 cubic centimeters of 1/10 normal hydrochloric acid solution were added suspensions of 1 gram of each preparation. Within five minutes the Alglyn

*Generously furnished by the Meta Cine Company, Chattanooga, Tennessee.

suspension showed a rise of pH from 1.1 (the pH of the acid) to 4.6, but twenty-five minutes were required for the aluminum hydroxide to rise from 1.1 to 3.6. The Alglyn buffers immediately, not slowly, as the aluminum hydroxide gels usually do, and should give prompt relief of ulcer symptoms. The capacity for long buffering action of this preparation was compared with that of aluminum hydroxide gel, and the results are shown in Fig. 6.

The effects of Alglyn on peptic activity were studied. Warren, et al.,⁷³ demonstrated that calcium carbonate, aluminum hydroxide, and magnesium trisilicate decrease the peptic activity of histamine-stimulated gastric secretion in man. Inhibition of peptic activity occurred when the pH of the gastric contents approached neutrality; however, for a given pH, aluminum hydroxide apparently exerts a greater antipeptic effect than does calcium carbonate. The method employed in this study of peptic activity was described by Anson and Mirsky.⁷⁴ We found that this method is too complicated for routine use, and have followed a simpler procedure which is described by Riggs and Stadie.⁷⁵ To 5 cubic centimeter samples of gastric juice, obtained each morning from patients being prepared for gastroscopic examination, 5 milligrams of powdered Alglyn were added. It was found that this drug inhibited the peptic activity only slightly in samples varying in pH from 1.36 to 7.64; the peptic activity depended more on the pH than on the drug. This drug has another advantage in that some digestion can proceed even if the gastric contents are well buffered.

The disintegration time of Alglyn was ascertained by means of the gastroscope. Patients were prepared for examination in the usual manner; the stomach was aspirated, and, immediately before the introduction of the gastroscope, a 0.5 gram tablet of Alglyn was given with 25 cubic centimeters of water (to facilitate swallowing). In no case was the patient allowed to chew the tablet. Fifteen such observations were made, and, in all, the tablet was seen to disintegrate within five minutes or less. In some, only the powdered drug could be seen on or between the gastric rugae, usually in the mucous lake. On two occasions, the tablet remained within the esophagus and formed a heavy coating over the instrument as it was passed; the stomach could not be visualized because this sticky film was adhering to the window. Alglyn, in tablet form, was selected for clinical use because it disintegrates rapidly, can be given in controlled dosage, does not inhibit peptic activity, and has immediate buffering action.

In the treatment of 44 patients, chiefly men ranging in age from 17 to 83, Alglyn was given

in addition to the routine previously outlined. Some of these patients have been observed for a period of seven months. Two, who were marked psychoneurotics, failed to improve, but the others showed satisfactory progress. Alglyn was well tolerated, even by the patient who misunderstood the instructions and took 0.5 gram of the drug hourly for eight days. One of our patients, a physician whose diagnosis of duodenal ulcer was proved by repeated roentgenologic examinations, had tried various antacids for many years. He stated that Alglyn tasted better, that the tablets were softer and could be swallowed without preliminary chewing, and that they produced less constipation. Unlike the other aluminum preparations he had used, Alglyn gave prompt relief as well as a prolonged effect. The following case reports will illustrate the results obtained with this drug.

CASE REPORT I

B.S. (private patient), sixty-one years of age, was seen July 5, 1944, complaining of abdominal distress of three years' duration. The "feeling of fullness" occurred during the spring, was not localized, and appeared one and one-half hours after meals. He did not recall any factors which aggravated or relieved it. On a few occasions he vomited before breakfast. This attack terminated spontaneously, and he had no recurrence until two months prior to admission. At this time the distress was localized in the epigastrium, did not radiate, and occurred in mid-afternoon. Food gave some relief, but would cause the distress to recur later in the day. He obtained relief from belching, taking soda and belching, and moving his bowels. Two weeks later, during defecation, he had generalized abdominal pain which was severe enough to double him up. He was nauseated, but did not vomit. The following day he had residual soreness, nausea, and finally vomited some brown material. He had never noticed the color of his stools because he used an outdoor toilet. Since the attack of severe pain, distress occurred daily and was more intense.

The patient was well developed, obese, and did not appear acutely ill. Physical examination was entirely negative except for pulmonary emphysema. Neurologic examination revealed no abnormalities. The blood Wassermann reaction was negative. The hemoglobin and blood cell counts were normal, and special blood examinations showed nothing abnormal. The test for the presence of occult blood in the stool was negative. Roentgenograms of the genito-urinary tract were normal; no calculi were seen. A large, penetrating ulcer on the lesser curvature of the stomach, measuring two centimeters in diameter, was discovered on roentgenologic examination. Gastroscopic examination was attempted, but was unsuccessful because of marked cardiospasm.

He was given routine treatment, including psychotherapy, a simple general diet with milk between meals, and Alglyn in a dose of 1 gram five times a

day. Antispasmodics and sedatives were omitted in order to study the effects of Alglyn. The lesion had the appearance of a benign ulcer, but, since carcinoma had not been conclusively ruled out, he was advised to return at the end of two weeks for re-examination. He returned as directed, stating that he had had no distress or constipation, and that he had been able to carry on his farm work. Roentgenograms showed that the ulcer was one-half its original size. Cardiospasm again prevented gastroscopic examination. Since then the patient has adhered to the diet and the drug, and has had no further recurrence of symptoms.

CASE REPORT II

A. W. (Hospital Number 44-7715), thirty-five years of age, was seen July 27, 1944. He complained of recurrent attacks of epigastric distress and vomiting of six years' duration. The symptoms had increased in severity and occurred daily during the six months prior to admission. The history was typical of peptic ulcer with pyloric obstruction.

Physical examination was entirely negative. Routine laboratory tests and the blood Wassermann reaction were negative. Roentgenologic examination of the stomach was negative, but the duodenum could not be visualized. Roentgenograms taken four hours later showed that 50 per cent of the barium was still in the stomach, and in the region of the duodenum a niche was visualized. He was given routine instructions, with special emphasis on elimination of alcohol and the necessity of changing many of his habits. A simple general diet, a combination of phenobarbital and belladonna, and Alglyn in a dose of 1 gram three times a day were prescribed.

He returned October 2, 1944, stating that he had followed directions carefully, "felt like a million," and was able to do more farm work than at any time in the past six years. He had had no distress or vomiting, and had gained twelve pounds. Three weeks before this admission he had discontinued the phenobarbital and belladonna, but had continued the Alglyn. Roentgenograms showed a normal stomach, a constant filling defect of the duodenal bulb, and no gastric retention. Once again he was given routine instructions and was told to continue the diet and medication.

On January 8, 1945, he stated that he had gained more weight, and had recently discontinued the medication and the prescribed diet because he had continued to feel "so well." He had gone on an extended hunting trip late in the fall and had had no distress. He continued to disregard instructions until February 1, 1945, when he returned to the hospital because of a gradual return of all of his symptoms, including nocturnal vomiting. He now admitted the folly of late hours, worry, irregular meals, overeating, and indulgence in alcoholic beverages. Upon resumption of the original regime, his symptoms promptly disappeared.

Comment: The above case illustrates that psychotherapy is more important than other measures in the treatment of peptic ulcer. After many attacks of

pain and vomiting during the last six years, this patient finally realizes the factors which precipitate his distress. With repeated reassurance during the periods of remissions, the exacerbations may be prevented.

Much attention has been called to the detergents as a means of controlling the symptoms of peptic ulcer by inhibiting peptic activity. Folgelson and Shoch⁷⁶ reviewed this subject and found that 26 out of 34 patients had relief of symptoms when given sodium alkyl sulfate in doses of 0.2 gram every two hours during the day. We have had only limited experience with this type of chemical, and to date have been unable to draw any definite conclusions. A recent editorial in *The Journal of the American Medical Association* concludes that the medicinal and, particularly, the internal use of detergents appears to be still in the experimental stage, and that much more intensive study is needed before they can be included in the list of useful substances for application internally.⁷⁷

Peptic ulcer is a chronic disease, characterized by remissions and exacerbations. An ulcer does not become arrested in less than twelve months, whether symptoms have disappeared or not. During the treatment of this disease, whether it be medical or surgical, the patient must be reexamined at frequent intervals, preferably every three months.⁷⁸ Why do you have this difficulty? Because you were fortunate enough to be born with a high-strung nervous system. This point is stressed so that the patient will realize that it is not the period of exacerbation, but the period of remission, when he is feeling well, that is of prime importance in determining how much trouble his ulcer is going to give him. He is made to understand that he was born with a disposition that reacts violently to external stimuli, and that it is during these reactions that his symptoms occur. Most physicians feel that psychotherapy is a long, time-consuming procedure, when, in reality, the ulcer patient can be instructed and reassured within a very short time. Alvarez⁷⁹ states that the patient who goes through an emotional crisis should immediately start taking food every hour or two, to avoid a flare-up. The physician who interviews the patient may need only suggest an extra glass of milk during the night, and thus save him from a complication. The average ulcer patient is highly sensitive and emotional, and will readily respond to suggestions. It is necessary that the same instructions, the same warnings, be repeated over and over again, because he is too likely to forget what he is told. The ulcer patient forgets because he is overactive in his efforts to get things done, and, thus, continues to eat rapidly, resorts to laxatives when constipated, and

is soon found to be doing just the opposite of what his physician told him. Many a patient is far more intractable than his ulcer. Sara Jordan⁸⁰ states that, when a patient has been intractable long enough, the ulcer often becomes intractable. Relhuss⁵⁹ stresses that the management of a patient in a long interval between exacerbations of symptoms, in which he learns to observe the rules of the so-called "ulcer life," is the best guarantee against a recurrence. It must be emphasized and reemphasized that, if the patient with a peptic ulcer is seen by his physician frequently, and taught how to live during his periods of remission, these periods will become longer and longer, and there will be fewer exacerbations and, probably, complications.

Too often the doctor has called a patient a "medical failure" because he does not respond to drugs. The patient who is adequately treated, not only when his ulcer is bothering him but when he is up and able to do his work, is not a medical failure if he develops a complication or intractable pain, but is a victim of advancing histologic changes. Good medical management includes the treatment of the patient, his disposition, and his habits, and often his family, as well as the giving of drugs. The most effective part of the treatment is that which is directed toward the factors which precipitate the emotional flare-ups. Following this is the regulation of the patient's habits, starting with diet, how he eats, bowel function, amount of rest and sleep, and, finally, the use of irritants such as alcohol. The next part of the management is directed toward the focal symptoms of the ulcer, and this is done with drugs, the most important of which are the antispasmodics, or the antispasmodics in combination with sedatives and, lastly, the antacids.

CONCLUSIONS

1. Peptic ulcer is a chronic disease which may be arrested but is seldom cured.

2. Recent statistics, particularly those from the armed forces, indicate that the incidence of this disease is increasing; this is more apparent than real.

3. A complete history must be obtained to ensure correct diagnosis and adequate treatment.

4. Gastrosopic examination aids in diagnosis; the healing of a gastric ulcer can be watched, the malignancy or benignity of a gastric lesion can often be ascertained, and the presence of a duodenal ulcer can be inferred by indirect evidence. Pigment spots are commonly, and hypertrophic gastritis rarely, associated with a duodenal ulcer.

5. Pain in peptic ulcer is not induced by acid but results from increased gastric tension, increased peristaltic activity, and pylorospasm.

6. The indications for medical management are as clear-cut as are those for surgical intervention but, unfortunately, of all duodenal ulcers that lend themselves to control by medical measures, 90 per cent are inadequately treated.

7. Medical management includes, in order of importance, psychotherapy, regulation of habits, dietary measures, sedatives, antispasmodics, and antacids.

8. The patient must be made to realize the relationship between the psychogenic factors and his distress, and shown that he is not responsible for the precipitating factors.

9. The ulcer patient responds better to treatment in his own environment, and should not be made to take vacations, or change his employment, without definite indications.

10. The manner in which the patient takes his meals is of more importance than the type of diet prescribed. The diet should not only be positive and adequate, but should conform with the patient's budget, war rationing, and racial and religious practices.

11. Constipation and the so-called irritable bowel syndrome may cause epigastric pain more frequently than does the ulcer. In such cases, lubricants may be used without fear of interference with the absorption of vitamin A and carotene.

12. Alcohol should be prohibited, except in the presence of peripheral vascular or coronary artery disease. Abstinence from tobacco often aggravates distress if the patient is a confirmed smoker. Relaxation is better obtained by means of an occasional cigarette than through the use of extra sedatives.

13. Sedatives should be used only during periods of distress and not prescribed routinely over long periods of time.

14. Atropine is the best of the antispasmodics because it reduces gastric motility, intragastric tension, and gastric acidity.

15. Nonbuffering antacids may produce alkalosis, whereas buffer antacids cannot produce alkalosis, per se, and, when insoluble, act over a long period of time.

16. A new buffer antacid, aluminum dihydroxy-aminoacetate, (Alglyn), has been tried in a series of 44 cases of peptic ulcer with encouraging results. This preparation has the following advantages: In the tablet form it can be given in exact doses and is convenient for the patient to carry; it is palatable; it disintegrates rapidly within the stomach; it does not require chewing; and it buffers immediately, as well as over a long period of time.

17. Absence of symptoms does not necessarily

denote that the ulcer is healed, for healing seldom occurs in less than twelve months.

18. Ulcer patients should be seen at frequent intervals, preferably every three months, whether symptoms are present or not.

19. The term "medical failure" should not be applied to a case of peptic ulcer, whether a complication is present or not, unless the patient has had adequate trial with frequent interviews, psychotherapy, guidance of his habits, dietary measures, antispasmodics, sedatives, and antacids. "Medical failure" usually indicates an intractable patient, and not an intractable ulcer.

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CLINICOPATHOLOGIC CONFERENCE

HYPERSENSITIVITY AND OTHER TOXIC REACTIONS TO SULFONAMIDES

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CASE REPORT

Clinical History: The patient, a white male sixty-eight years of age, entered the hospital December 9, 1943, with a chief complaint of progressive difficulty in voiding during the past ten to twelve years. The present history indicated increasing frequency and a nocturia of one to three times, associated with a small weak stream. At one time he had complete retention, necessitating catheterization. He also had pain in the perineum for several months. The family history revealed that one brother had died of a carcinoma of the prostate gland.

Physical Examination: Physical examination revealed a well developed white male. His normal weight was 175 pounds; the present weight was 155 pounds. The blood pressure was 122/76. The physical examination was essentially negative

except for a symmetrically enlarged prostate. There were 70 cubic centimeters of residual urine.

Laboratory Examination: On admission the red blood cell count was 4,900,000; the white count was 7,000; the hemoglobin 15.5 grams. An electrocardiogram was normal. The blood nonprotein nitrogen was 41 milligrams per 100 cubic centimeters. The blood creatinine was 1.75 milligrams per 100 cubic centimeters. The acid phosphatase was 1.58 (normal 0-3.3). The kidney function tests were normal. There were many pus cells in the urine.

Progress: By cystoscopy a moderate intravesicular enlargement of the prostate was found. The first stage of a suprapubic prostatectomy was done December 21, 1943. Immediately following surgery, sulfathiazole, grams 4, was given daily for five days, the patient receiving a total of 20 grams. Convalescence was uneventful. On January 7, 1944, the second stage of the prostatectomy was done. At operation it was found impossible to shell out the prostate smoothly, so that it was necessary to remove it in pieces. There was a moderate amount of blood loss. The patient was given 500 cubic centimeters of plasma. A Pilcher bag was left in for hemostasis. The first three postoperative days were uneventful. The bag was removed the third day. Following removal of the bag there was considerable hemorrhage, lasting about three or four minutes. He was given 250 cubic centimeters of whole blood. On January 11, 1944, the fourth postoperative day, the patient had a chill and complained of feeling weak. The temperature rose to 103 degrees, the pulse to 100, and the respirations to 24. Sulfathiazole administration again was started. On January 11 he was given a total of 4 grams. On January 12 the temperature varied between 102.2 and 100.2 degrees, the pulse from 96 to 88, and the respirations from 35 to 28. On that day he was given a total of 6 grams of sulfathiazole. On January 13 a roentgenogram of the chest was made and the report was as follows: "Beside examination of the chest shows a moderate homogeneous impaired translucency over the left lung which could be produced by pleural thickening, slight hydrothorax or early pneumonic consolidation. There is slight elevation of the left diaphragm. There is no shift of the heart. The trachea is in the midline." On January 13, 6 grams of sulfathiazole were given. The urinary output was markedly diminished. In twenty-four hours only 300 cubic centimeters of urine were passed despite intravenous fluids. On January 14 a blood sulfathiazole level was 17 milligrams per 100 cubic centimeters of blood. The blood pressure was 80/70. The blood nonprotein nitrogen had risen to 90 milligrams per 100 cubic

centimeters, and the creatinine to 3 milligrams per 100 cubic centimeters. Intravenous fluids were given. Cyanosis of the extremities was noted and the patient complained of abdominal discomfort. The administration of sulfathiazole was stopped, the last dose having been given January 13. On January 15 the blood nonprotein nitrogen was 124 milligrams per 100 cubic centimeters, the blood creatinine 6.2 milligrams per 100 cubic centimeters, the blood sugar 94 milligrams per 100 cubic centimeters, and blood chlorides 500 milligrams per 100 cubic centimeters. On January 16 the patient was mentally confused. There was no urinary output. The patient developed a generalized maculopapular rash, which in twenty-four hours became pigmented. On January 17 the patient was semicomatose and unable to take fluids by mouth. The blood nonprotein nitrogen was 145 milligrams per 100 cubic centimeters, the creatinine 5.1 milligrams per 100 cubic centimeters, the blood sugar 100 milligrams per 100 cubic centimeters. On January 18 he was comatose and had Cheyne-Stokes respirations. The patient hiccuped continuously. On January 19 the pulse was 96, the temperature 100.2 degrees, respirations 24. On January 20 the temperature was 100, the pulse 96, respirations 32. The anuria persisted. The patient expired at 9:00 a. m. on January 20, 1944.

NECROPSY ABSTRACT

External examination of the body revealed a moderate icteric tinge of the sclerae. There was a slight increase in the anteroposterior diameter of the chest. A suprapubic surgical incision communicating with the bladder was present. An indurated area on the posterior aspect of the root of the penis was noted. There was a thrombosis of the dorsal vein of the penis. There were multiple small pigmented areas of the skin. Upon opening the abdominal cavity, a small localized area of peritonitis was found where a loop of the ileum was adherent to the parietal peritoneum in the region of the suprapubic surgical incision. Otherwise the peritoneal cavity was not remarkable. There were scattered pneumonic infiltrates in the lower lobes. The heart weighed 380 grams. There was a generalized fibrinous pericarditis. The lesser cardiac vein was occluded by an agonal thrombus. The spleen and liver were enlarged, weighing 275 grams and 1,740 grams, respectively. The right kidney weighed 155 grams, the left 190 grams. In the myocardium, liver, and kidneys there were small discrete grayish white infiltrates. These infiltrates had a distinct tendency to be localized about the blood vessels. None of the infiltrates measured over 2 millimeters in diameter. No sulfonamide precipitates were noted in the renal parenchyma, pelvis, calices, or ureters.

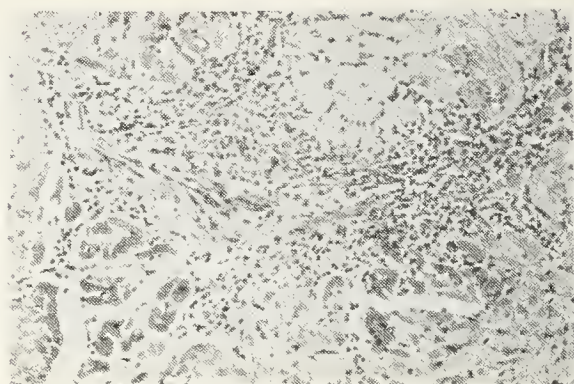


Fig. 1. A photomicrograph of a typical perivascular eosinophilic granulomatous lesion seen in the heart. The inflammatory changes extend into the wall of the artery. Such a lesion is morphologically identical to periarteritis nodosa. Adjacent to the inflammatory infiltrate some of the cardiac fibers exhibit hydropic degeneration. A.M.M. Neg. 81672 (x 250)

There were no significant abnormalities of the ureters. A marked cystitis was present. The ureterovesical orifices were patent. The surgical defect of the prostate was lined by a necrotic exudate. There was a moderate, generalized arteriosclerosis. Microscopically, the grayish white lesions in the heart, liver, and kidneys consisted of interstitial, perivascular, eosinophilic, granulomatous infiltrations. A typical infiltrate (Figures 1, 2, and 3) was composed of large mononuclears, neutrophilic and eosinophilic polymorphonuclear leukocytes, and lymphocytes imbedded in a connective tissue stroma often manifesting fibrinoid necrosis. Frequently the adjacent parenchymal cells were destroyed. In all of the organs many of the lesions were morphologically indistinguishable from those seen in periarteritis nodosa.

ANATOMIC DIAGNOSIS

1. Hypersensitivity, sulfonamide (parenchymatous, perivascular, eosinophilic, granulomatous lesions).
2. Cystotomy, suprapubic, surgical (December 21, 1943).
3. Prostatectomy, surgical (January 7, 1944).
4. Myocarditis, interstitial, severe.
5. Hepatitis, interstitial, severe.
6. Nephritis, interstitial, bilateral, severe.
7. Pneumonitis, bilateral.
8. Emphysema, pulmonary, bilateral, moderate.
9. Thrombosis, lesser cardiac vein, agonal.
10. Cystitis, acute, ulcerative.
11. Abscess, bulbous urethra.
12. Peritonitis, localized, ileum.
13. Periappendicitis, secondary to localized peritonitis.
14. Icterus, slight.
15. Arteriosclerosis, slight to moderate.
16. Uremia.
17. Pericarditis, fibrinous, secondary to uremia.
18. Thrombosis, dorsal vein, penis.

COMMENT

The pathologic changes in this case resembled the periarteritis nodosa-like lesions resulting from hypersensitivity to serum and sulfonamide reactions as described by Rich.^{1, 2, 3} Similar lesions in mice were produced experimentally by French⁴ using sulfonamides. French and Weller⁵ also noted the same changes in human autopsy material. The history of this case resembles others that have been studied but not yet reported. In all probability, when a sufficient number of cases have accumulated, the history of this case will be found to be typical—namely, a course of sulfonamide with no reaction, followed in a few weeks or months by another course of sulfonamide with the production of the vascular and perivascular lesions illustrated by this autopsy. It seems logical that this reaction is one of hypersensitivity because of the story of previous treatment without ill effects, and then after an interval, a second course resulting in a fatal reaction. Such a concatenation of events suggests a change in the patient rather than a change in the toxic property of the drug. This type of reaction can be explained by the formation of a hapten;⁶ that is, the combining of a sulfonamide with a protein, resulting in the production of an antibody not only specific for the actual sulfonamide, but for the chemical grouping of the compound.* That the sulfonamides can be combined with proteins has been well established.^{7, 8} The specificity for the chemical grouping of the compound, rather than the compound per se, would be of considerable clinical interest because of the current opinion that the toxic reaction to one sulfonamide may not be a contraindication for the use of a different sulfonamide.

DISCUSSION

Although degenerative, toxic, or inflammatory changes of practically every tissue in the body have been attributed to the various sulfonamides, the

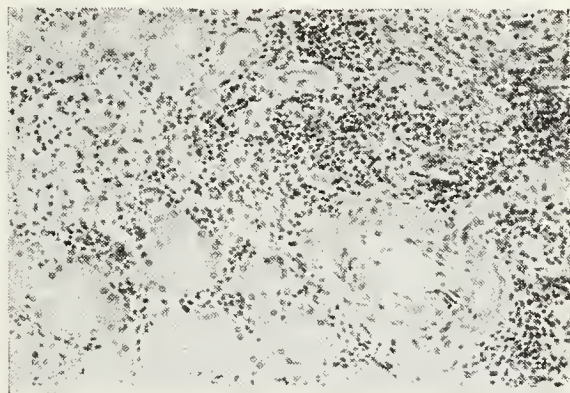


Fig. 2. A photomicrograph of the renal cortex showing the inflammatory reaction surrounding an interlobar artery. The destruction of the adjacent nephrons is obvious. A.M.M. Neg. 81606 (x 250)

following classification includes the ones likely to be encountered:

1. Hemotoxic reactions.
 - a. Leukopenia.
 - b. Neutropenia.
 - c. Agranulocytosis.
 - d. Leukocytosis.
 - e. Hemolytic anemia.
 - f. Thrombocytopenia.

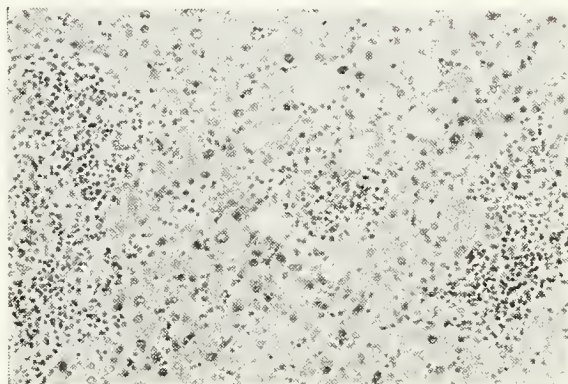


Fig. 3. A photomicrograph of the liver showing lesions similar to those seen in the heart and kidney. The two marginal lesions are situated in the periportal regions. Necrotic cells are present at the periphery of the infiltrate. A.M.M. Neg. 81608 (x 250)

2. Hepatotoxic reaction.
3. Dermopathic, ophthalmopathic, orthopathic, and/or hyperthermic reactions.
 - a. Dermatitis.
 - b. Episcleritis or conjunctivitis.
 - c. Arthritis.
 - d. Fever.
4. Vasculotoxic reactions.
5. Nephrotoxic reactions.
 - a. Toxic nephrosis.
 - b. Calcific nephrosis.
 - c. Urolithiasis.

Hemotoxic Reactions: Fortunately, the hemotoxic reactions usually improve after discontinuation of the sulfonamide therapy. Since neutropenia heralds the approach of a frank agranulocytosis, its recognition is of the utmost importance. The pathogenesis of the neutropenia and agranulocytosis is well established, consisting of the arrest in the maturation of the cells of the granular series.⁹ The hemolytic anemia is probably peripheral rather than central. All of these reactions can be detected early by doing frequent blood counts. The importance of doing frequent blood counts is obvious since, as previously stated, the hemotoxic reactions tend to be reversible, providing the drug is stopped soon after their appearance.

Hepatotoxic Reactions: The pathologic changes consist of necrosis of the hepatic cells, producing the picture of acute yellow atrophy.⁹

*Some of our other patients had first received sulfadiazine and then sulfapyridine with the production of lesions similar to this case.

Dermopathic, Ophthalmopathic, Orthopathic, and/or Hyperthermic Reactions: Any of these may occur singly or together. Sometimes all four are present. With regard to the skin, the most common reaction is a more or less nonspecific-appearing dermatitis of an erythematous or papular type. Photosensitivity may occur and it is presumably related to a disturbance produced by the drug in the metabolism of the pyrrole pigments. In most cases the reactions in this group are likely to occur between the sixth and tenth day after therapy was started. Usually if the drug is stopped, these reactions promptly disappear, generally within four days' time. It is obvious that most of these reactions are, as a rule, detected early. There is one practical point to remember about either this type of reaction or the hemotoxic reactions. It is mandatory that the physician explain to the patient he has had a toxic reaction to a sulfonamide and to warn the patient against re-taking the drug.

Vasculotoxic Reactions: This type of reaction is well illustrated by this case. As previously stated, the pathology of this reaction is similar in many respects to the lesions seen in periarteritis nodosa. Unfortunately, this type of reaction is often fatal. The cause of death may be the result of either the myocardial, renal, or hepatic involvement. As in the case reported, the renal involvement is manifested clinically by the development of a rapidly progressive oliguria, eventually anuria and uremia.

Nephrotoxic Reactions: Sulfonamide toxic nephrosis is an extremely common autopsy finding. However, in the vast majority of cases, only a few tubules are involved. Rarely may the process be widespread enough to produce clinical signs. In sulfonamide toxic necrosis there are degenerative changes in the epithelium of the tubules. These degenerative changes consist of a cloudy swelling, fat deposits, and even necrosis.⁹ In addition, the affected tubules usually contain casts composed of cellular debris. Occasionally inflammatory changes occur in the interstitial tissue adjacent to the affected tubules.

Calcific nephrosis is merely an end stage of toxic nephrosis. The degenerated tubular epithelium may be replaced by regenerated epithelium or the necrotic material may become calcified. The calcific nephrosis is rarely of clinical significance.

Sulfonamide urolithiasis results from precipitation of masses of sulfonamide crystals. This precipitation may occur in the tubules, calices, pelves, or ureters. Clinically, as a result of the precipitation, there may be hematuria, renal colic, or even anuria. The likelihood of precipitation of sulfadiazine, sulfathiazole, and sulfamerazine crys-

tals can be lessened by the maintenance of an adequate urinary output (1,500 cubic centimeters or more) and the supplementation of the sulfonamide with alkali therapy. Alkalinization is necessary since the aforementioned drugs are far more soluble in an alkaline urine than in an acid urine.¹⁰ The solubility of sulfapyridine is not increased within the range of the urinary hydrogen ion concentration. Normally, the urine is acid, having a hydrogen ion concentration of about six. The precipitation of the sulfonamide crystals tends to occur in the lower portion of the nephron rather than in the convoluted tubules for the following reasons:

1. The sulfonamide concentration in the glomerular filtrate is about the same as in blood.
2. The hydrogen ion concentration of the glomerular filtrate is about the same as that of blood, namely, slightly on the alkaline side.
3. In the renal tubules many of the constituents of the urine, including water, are reabsorbed. With absorption of water, the concentration of the sulfonamides is increased.
4. Not only is the water absorbed by the tubular epithelium, but alkaline materials are also absorbed, thereby lowering the hydrogen ion concentration.

In the administration of alkali, it is well to remember that the *normal adult kidney* can excrete alkali excess at the maximum rate of fifteen grams *per liter* of urine.¹¹ For oral use, sodium lactate or sodium citrate are preferred to sodium bicarbonate, since with the first two neutralization of hydrochloric acid in the stomach is avoided as well as the gastric distress resulting from the liberation of a large amount of carbon dioxide. When sodium lactate and hydrochloric acid react, lactic acid is set free without gas formation and the hydrogen ion concentration of the lactic acid is sufficient so as not to interfere with peptic digestion in the stomach.¹¹

A teaspoonful of sodium lactate or sodium citrate in a full glass of water every four hours is usually sufficient. The alkali medication should be carried on for twenty-four hours after the sulfonamide has been discontinued.

When it is necessary to use parenteral chemotherapy such as in the early stages of meningitis, the intravenous sodium sulfadiazine or sulfathiazole should be immediately followed by intravenous sodium lactate solution. Hartmann¹¹ recommends that in twenty-four hours a total amount of sodium lactate be administered that is equal to 5 cubic centimeters of a molar solution (30 cubic centimeters of a 1/6 molar or isotonic solution) per kilogram (2.2 pounds) of body weight.

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USE OF PENICILLIN AND SULFADIAZINE LOCALLY IN ORAL INFECTIONS

Preliminary Report

A. C. WOOFER, M.D., AND

O. E. HOFFMAN, D.D.S., Des Moines

Favorable reports have been made on the use of penicillin for numerous infections^{1, 2, 3, 4} and for application to localized infections.^{5, 6, 7}

MacGregor and Long⁸ reported the use of penicillin in the form of pastilles, prepared with gelatine. Each pastille contained 500 Oxford units, which was to be placed in the buccal fold and replaced as soon as dissolved. Treatment was carried out continuously during the day until retiring. They reported twenty-five patients to be asymptomatic within twenty-four hours, with disappearance of pain, insomnia, and other symptoms. Sloughing membranes and hyperemia were gone. Other patients with acute hemolytic streptococcal tonsillitis and scarlet fever responded to treatment. Penicillin agar pastilles were used for acute gingivitis by Greey and MacDonald⁹ with similar results.

Routine oral examinations carried out by the Dental Division, Iowa State Department of Health, have disclosed the frequency of chronic gingivitis. Accordingly, an attempt is being made to develop a simple and satisfactory method of treating chronic gingivitis which might also be applicable to acute Vincent's disease. Diagnosis has been made by history, appearance of the affected area, and dark-field examination of specimens removed from the gingival crevices or pockets. All examinations were carried out under identical conditions.

Penicillin lozenges of 250 Oxford units each were given a group of fifteen patients with chronic gingivitis. A total dosage of 1,000 units was given every three hours four times a day for three days.

At the end of one week there was some improvement in the appearance of the affected area, but darkfield examinations generally revealed the presence of oral spirochetes and other organisms.

Following a brief trial of penicillin alone it was decided to combine 500 Oxford units of penicillin with 0.25 gram of sulfadiazine in the form of a powder. The penicillin was dispersed through the powder and placed in No. 2 capsules and refrigerated. Treatment was carried out for three days four times a day by opening two capsules and spreading the contents over the area of infection. Mild pressure was exerted externally for a few seconds with gentle rolling of the cheek and lip against the teeth to compress the powder into the interproximal spaces.

Five patients with chronic gingivitis were selected for treatment. Each patient had a large area of inflammation at the gum margin, receding gum margins, and bleeding. Many active oral spirochetes, fusiform bacilli, vibrios and cocci were found in darkfield examination.

One week after beginning treatment the gums had assumed a normal pink color and darkfield examinations were all negative. On the second or third day all bleeding and discomfort ceased. No local or systemic reactions were encountered. There was no change in the condition of five untreated controls. All infections had existed for a period of one year or more.

Two acute cases of Vincent's stomatitis were observed and similarly treated. Inflammations had largely disappeared within twenty-four hours except for a small area around one posterior molar.

SUMMARY

This preliminary report indicates that the use of penicillin in combination with sulfadiazine applied in the form of a powder may be effective in many cases of chronic or acute gingivitis otherwise resistant to treatment.

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STATE DEPARTMENT OF HEALTH

Walter L. Biering

Announcing Tropical Disease Laboratory Course

Under date of March 27, 1945, the Commissioner forwarded a letter to staff physicians and superintendents of 109 hospitals of Iowa, announcing plans for a special laboratory course on malaria and other tropical diseases. The course is sponsored jointly by the State University College of Medicine and the State Department of Health, in cooperation with the United States Public Health Service.

The place of meeting will be the State Hygienic Laboratory, Iowa City, beginning Monday, July 23, and ending Saturday noon, July 28, 1945. Hours will be from 8:00 to 12:00 a. m. and 1:00 to 5:00 p. m., daily, with review and study of "unknowns" on Tuesday and Friday evenings from 7:00 to 9:00.

In charge of instruction will be Milford E. Barnes, M.D., Dr. P. H., Professor of Hygiene and Preventive Medicine; Dr. Kenneth MacDonald, Assistant Professor, Hygiene and Preventive Medicine, and Irving H. Borts, M.D., Director, State Hygienic Laboratory. Dr. Barnes has a fine collection of specimens of plasmodia and other parasites which members of the class will have opportunity to observe. Primary emphasis will be placed on malaria and the thick film method of diagnosis. Other blood and intestinal

parasites will be available for study, including Amoebae and Ciliata. Use will also be made of appropriate moving picture films.

REGISTRATION AND REQUIREMENTS FOR

PARASITOLOGY COURSE

It is probable that many laboratory workers would like to avail themselves of this occasion to become more familiar with laboratory technics in the diagnosis of tropical and exotic diseases. Travel cost (on the basis of railroad transportation) and other expenses incident to the trip to Iowa City will be paid by the State Department of Health from funds appropriated through the U. S. Public Health Service. *It will be necessary for each person to provide a microscope and oil immersion lens.* In response to the letter to staff physicians and hospital superintendents, names of twenty-two laboratory workers have already been received, indicating their plan to participate.

Should there be other laboratory technicians or physicians who might arrange their duties so as to take part in this special course, it is suggested that notice of registration, similar to the registration form below, be returned to the State Department of Health without delay. Further information pertaining to hotel reservations will be supplied to those who register for attendance.

REGISTRATION FOR SPECIAL PARASITOLOGY COURSE

Address.....

Date.....

Iowa State Department of Health,
1027 Des Moines St.,
Des Moines 19, Iowa.

It is desired to inform you that.....
.....plans to attend the special laboratory course on tropical diseases.

Signed.....
M.D., or Superintendent

IMMUNE SERUM (GAMMA) GLOBULIN

As announced in the April number of the JOURNAL (pages 143 and 146), the State Department of Health has immune serum globulin, also called gamma globulin, which is distributed from the Department's Serum-Plasma Center.

Immune serum (gamma) globulin is supplied without cost, by the American Red Cross, "on condition that the product will be used for prophylaxis, modification, and treatment of measles, that it will be distributed without charge to physicians, hospitals and clinics . . . and that it will be administered without any charge to the patient for the product."

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No. 5

7th WAR LOAN DRIVE MAY 14 TO JULY 5

The 7th War Loan calls for the largest individual purchase of bonds of any of the war bond drives thus far. The total quota for Iowa is \$189,-000,000, and the individual quota is for \$135,000,-000 including the series E bond quota for individuals of \$82,000,000. This contrasts with the 6th War Loan quota for individuals of \$106,000,-000 including the E bond goal of \$61,000,000.

Two chief reasons are given in explanation for the increased amount which must be raised in the approaching drive. First, there will be only two drives in 1945 instead of the three as in 1944, and second, there can be no reduction in government expenditures until the more costly war in Japan is won and the boys are returned home and rehabilitated.

Thus, in brief, can be recorded the facts attending the 7th War Loan drive. That the people of Iowa will meet this quota as they have all previous quotas can be taken for granted, although a great deal of hard work will have to be done by a great many public spirited citizens before the task is successfully completed.

This opportunity to participate in the war effort should be—and we believe is—welcomed by every one of us. All we are asked to do is to loan our money—at interest—so that the boys who are fighting for us can have the equipment they need and the finances of the nation can be kept on a sound basis against the day when these same boys come back home to take up work where they left off. Furthermore, these extra bonds we're going to purchase are going to come in mighty handy when the war is finally over and there's a new car to buy and that long vacation to finance.

No, it's not much of a task assigned us if we

think of it in comparison to the task assigned the boys who took Iwo Jima, for instance. Maybe if we meet this 7th War Bond quota promptly and emphatically there might be a few less Iwo Jimas our boys will have to face. Could be!

THE MEDICAL PROGRAM FOR OLD AGE RECIPIENTS

The JOURNAL is pleased to publish the following communication from Dr. Channing G. Smith, State Medical Consultant of the Iowa State Board of Social Welfare. The contents will be of interest and value to all Iowa physicians and it is hoped that every effort will be made to cooperate fully with Dr. Smith to facilitate the administration of this medical aid program for old age recipients:

"More than a million dollars a year are now being paid for the treatment of chronic disease in Old Age Recipients and those who qualify under the Aid to the Blind Program.

"The Department of Social Welfare wants these elderly and blind people to receive good treatment. The Department desires to pay the actual expense of the treatment of chronic disease in these recipients. Since the payments are from public funds, the medical allowance is based upon the county indigent fee bill and the use of the simplest remedies compatible with efficiency. The law requires that the medical grant be paid to the recipient unconditionally.

"The need for common budgetary items such as food, clothing, and shelter can be estimated beforehand with fair accuracy. Sickness in an individual cannot be gauged with such precision. Any measure of success in predetermining the need and cost of medical treatment can be accomplished only through the constant help of the doctors.

"We are not satisfied with our administration of this medical aid program. We feel that too large a percentage of the amount paid is not being used for the proper purpose. Too much is employed for self medication or expended for other needs. As stated above, financial aid allotted to a recipient is given unconditionally, that is, after receipt of his check the recipient may spend it as he pleases (Federal and State law). However, the amount the recipient receives is based upon his actual need. The needs other than medical are provided for in his budget. If the medical grant is not used for medical services, it is not needed. If a recipient for whom you have submitted a medical report is not under your regular care, if the medical allowance is too small or too large, you should notify your County Board of Social Welfare, and an adjustment will be made.

"We fully realize the fact that doctors are overworked and do not have time to fill out reports.

To many of you, treatment of these recipients is unsatisfactory, and time given them entails a financial loss to you. To conserve your time, we seldom ask for yearly reports if there has been no change in diagnosis or in the doctor attending the recipient. Many doctors have gone to war and left prescriptions for their patients' needs. In these cases we are not asking for reports from other doctors unless we receive notice from the County Welfare Board that a change is needed. This is done not only to relieve you, but to keep alive some practice for the doctors upon their return.

"Usually the medical grant is based upon the probable cost of treatment for one year. In many diseases there are remissions and recrudescences and the cost of treatment will not be evenly divided over the months. When the information received indicates that your patient is very sick and may not survive long, we attempt to estimate the cost for the ensuing one to three months and a larger grant is given. At the end of the designated time, a County Worker's Health Report of the patient is requested. The report is requested from the county to save your time and as a guide for the allotment of sufficient funds for the future needs of your patient.

"In making out a medical report for a recipient, please bear in mind your county contract for the treatment of the indigent. Please do not request funds for treatment of surgical conditions or acute diseases, since these must be paid from other funds. Give us as much information as you can. Naturally the information received is reflected in the size of the grant. When little information is received, the grant can only be based upon the minimum allowed for the diagnosed disease.

"We wish to express our very earnest appreciation for the help the doctors have given us in this difficult problem."

CHANNING G. SMITH, M.D.,
State Medical Consultant.

HYPOPROTEINEMIA INCREASES SUSCEPTIBILITY TO INFECTION

Many recent studies concerning the significance of prolonged negative nitrogen balance in the surgical patient have an important clinical application. Despite this fact, the true importance of the protein reserve and of hypoproteinemia may not yet be fully appreciated. The emphasis to date has been upon the role of protein metabolism in surgical shock, burns, blood loss, nutritional edema, wound healing, and liver damage.

Cannon has recently completed studies which demonstrate an additional significance of protein metabolism. By animal experimentation he has

demonstrated that the frequency and severity of postoperative infection is dependent fundamentally upon an adequate protein level.

Antibodies are contained in the gamma fraction of serum globulin. Amino acids in food ingested or administered parenterally are synthesized into antibody globulin. Protein deficiency leads to a depression of the capacity of certain tissues to fabricate antibody globulin and hence jeopardizes the ability to elaborate specific antibodies.

The animal experiments conducted to substantiate the author's thesis consisted of the intravenous injection of antigen into markedly hypoproteinemic white rats and the determination of the antibody output. As controls, rats were fed identical diets with the addition of 22 per cent casein. The animals given an adequate protein intake in whom there was an adequate protein reserve were able to fabricate ten times as much antibody as were those fed a low protein diet in whom there were depleted protein reserves.

Besides a decreased capacity to produce antibody, the protein-depleted rats manifested an increased tendency to spontaneous infection. Three of twelve hypoproteinemic rats died and four others developed chronic abscessive pneumonia. None of the control rats showed any evidence of pulmonary infection.

At the present time there is no quantitative clinical method for the determination of gamma globulin. Dependence must be placed upon the amount of preoperative weight loss and the total serum protein determination.

The implications in the management of the hypoproteinemic patient are obvious.

SOME TRENDS IN CESAREAN SECTION

In a recent discussion of the subject of cesarean section operations Dieckman reports a collection of two thousand cesarean section autopsies. The principal causes of death were: infection and ileus, 38 per cent; embolism, 7 per cent; hemorrhage and shock, 30 per cent; toxemia, 19 per cent; pneumonia, 4 per cent; and anesthesia, 3 per cent. The opinion was expressed that two-thirds of these deaths were preventable!

Pertinent to the reduction of maternal mortality from cesarean section is a comparative study by Free¹ of 1,000 successive sections at Chicago Lying-In Hospital prior to March, 1938, and a series of 500 successive sections done from March, 1938, to March, 1942.

The incidence of cesarean section in the first group was 5.5 per cent of the total patients delivered. The later series showed a section incidence of 4.43 per cent. The indications for surgical interference in the two groups revealed some

variance. Multiple sections increased from 27 per cent to 38 per cent. Cardiac pathology as indication was 10 per cent in the first group and 3 per cent in the later series. Toxemia of pregnancy as a cause for cesarean section increased from 12 per cent to 18 per cent, indicating a tendency toward a more active attitude in the treatment of severe toxemia. The maternal mortality in the earlier group was 0.8 per cent; in the later series it was 0.4 per cent, a decrease of 50 per cent. The maternal morbidity or febrile response in the puerperium was 43 per cent in the first series and 31 per cent in the last 500 cases. This was a decrease of 29 per cent. The fetal mortality increased from 6.7 per cent in the first series to 9.2 per cent in the latter. This is attributed to the increase in the number of cases of toxemia and a more aggressive treatment of the severe cases.

It is obvious that maternal mortality and morbidity from cesarean section can approach an irreducible minimum by proper prenatal care, by careful consideration of the indications, and by careful surgical technic and the utilization of modern surgical aids.

REFERENCE

1. Free, E. G.: 500 consecutive cesarean section operations. *Am. J. Obst. & Gynec.*, xlix:401-408 (March) 1945.

VETERANS ADMINISTRATION FACILITIES UNDER FIRE

Several recent articles in lay periodicals have made serious allegations concerning the medical care accorded veterans in various Veterans Facility institutions. The JOURNAL does not have the information upon which to base an opinion as to the truth or falsity of these accusations, but it does believe the matter is one of major importance and one of especial interest to members of the medical profession—an increased number of whom will undoubtedly be required for this type of work in the postwar period.

According to editorial comment in the March 31 issue of the *Journal of the American Medical Association*, "Medical care for veterans would involve some 13,000,000 people, and, if their families are included, as many as 40,000,000." This represents a sizeable proportion of the population of the entire nation and it is inconceivable that medical care for this group should be on a lower standard than that prevailing for the rest of the people. Certainly those who have been wounded or who have become ill in their country's service deserve the best in the way of medical care that the nation has to offer.

But sentence should not be passed on the Vet-

erans Administration on the basis of partial investigations made by lay persons who publish their results spectacularly in the lay press for their effect upon the public. It is a safe assumption that interviews with certain types of patients in any institution in the land could result in most unfavorable publicity. Comparative statistical studies are hazardous and often result in erroneous conclusions as is well known by any scientist. On the other hand, if the charges which have been made are true, they should be verified and the situation corrected.

There would seem to be only one logical course to follow, and that is to have a careful inquiry made into the whole matter of Veterans Administration Facilities by an impartial qualified body. The suggestion of the *Journal of the American Medical Association* that such an investigative group make its report directly to the President ought to ensure accuracy and action if the latter be needed.

NUTRITION DEMONSTRATION CLINIC

The Polk County Medical Society recently announced an all day nutrition demonstration clinic to be held at Broadlawns Hospital, Tuesday, May 3. Doctor Walter Wilkins, a medical officer detailed from the United States Public Health Service to the Office of Distribution, will conduct the clinic. The State Department of Health is cosponsor.

The clinic will be developed especially to appeal to nurses, dietitians, dentists, and others engaged and interested in nutritional work. In the evening, following a dinner, Doctor Wilkins will address the Medical Society.

In Iowa we are not subject to the extreme results of malnutrition. As physicians we often see symptoms of various nutritional deficiencies among our patients in all economic circumstances. Results of the faulty nutrition seen in these patients are the major causes for rejection of many of our boys by selective service boards.

Correction of faulty nutritional habits and improvement in everyday practice of proper feeding, in health as well as illness, are the responsibilities of every person engaged in the preparation of food. The war has done much to point up the value of food values.

As a profession we have much to learn to keep abreast of our allies in the field of practical nutrition. However, from a scientific standpoint, we are better qualified to advise. This meeting gives physicians in Central Iowa an opportunity to hear one of the nation's outstanding workers in nutrition. Those of us who have patients with symptoms or extreme conditions due to nutritional deficiencies can assist by advising the local committee if they are available for clinical demonstration.

Roster of Iowa Physicians in Military Service

As of April 21, 1945

Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) Lt. Col., A.U.S.
Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.) Capt., A.U.S.

Adams County

Bain, C. L., Cornling (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Willett, W. J., Carbon (APO 230, New York, N. Y.) Capt., A.U.S.

Allamakee County

Hogan, P. W., Waukon
Ivens, M. H., Waukon (Miami Beach, Fla.) Capt., A.U.S.
Kiesau, M. F., Postville (Jefferson Barracks, Mo.) Major, A.U.S.
Rominger, C. R., Waukon (Camp Claiborne, La.) A.U.S.

Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.) Major, U.S.P.H.S.
Edwards, R. R., Centerville (APO 887 New York, N. Y.) Capt., A.U.S.
Huston, M. D., Centerville (Camp Bowie, Texas) Capt., A.U.S.

Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) Major, A.U.S.

Benton County

Koontz, L. W., Vinton (APO 7, San Francisco, Cal.) Capt., A.U.S.
Senfeld, Sidney, Belle Plaine

Black Hawk County

Bickley, D. W., Waterloo (APO New York, N. Y.) Capt., A.U.S.
Bickley, J. W., Waterloo (APO 956, San Francisco, Cal.) Capt., A.U.S.
Butts, J. H., Waterloo (Galveston, Texas) Comdr., U.S.N.R.
Cooper, C. N., Waterloo (Newport, R. I.) Lt. Comdr., U.S.N.R.
Ericsson, M. G., Cedar Falls (Camp Barkeley, Tex.) Capt., A.U.S.
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) Capt., A.U.S.
Henderson, L. J., Cedar Falls (APO 782, New York, N. Y.) Major, A.U.S.
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) Capt., A.U.S.
Ludwick, A. L., Waterloo (Abilene, Texas) Major, A.U.S.
Marquis, F. M., Waterloo (APO 513, New York, N. Y.) Capt., A.U.S.
O'Keefe, P. T., Waterloo (APO 79, New York, N. Y.) Capt., A.U.S.
Paige, R. T., LaPorte City (Banana River, Fla.) Comdr., U.S.N.R.
Rohlf, E. L., Jr., Waterloo (APO 230, New York, N. Y.) Major, A.U.S.
Seibert, C. W., Waterloo (Colorado Springs, Colo.) Major, A.U.S.
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) Major, A.U.S.
Smith, R. I., Waterloo (Milwaukee, Wis.) Capt., A.U.S.
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) Major, A.U.S.
Trunnell, T. L., Waterloo (Parris Island, S. Car.) Lt. U.S.N.R.

Boone County

Brewster, E. S., Boone (APO 446, New York, N. Y.) Major, A.U.S.
Healy, M. J., Boone (Fort Sill, Okla.) Capt., A.U.S.
Shane, R. S., Pilot Mound (Des Moines, Ia.) Lt. Col., A.U.S.

Bremner County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Rathe, H. W., Waverly (APO 209, New York, N. Y.) Lt. Col., A.U.S.
Shaw, R. E., Waverly (Long Beach, Cal.) 1st Lt., A.U.S.

Buchanan County

Barton, J. C., Independence (APO 314, New York, N. Y.) Lt. Col., A.U.S.
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Leehey, P. J., Independence (APO 244, San Francisco, Cal.) Capt., A.U.S.
Loeck, J. F., Aurora (APO 9787, New York, N. Y.) Capt., A.U.S.

Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) Capt., A.U.S.
Brecner, P. W., Storm Lake (Camp Adair, Ore.) Lt. Col., A.U.S.
Hansen, R. R., Storm Lake (Farragut, Idaho) Lt., U.S.N.R.
Mailliard, R. E., Storm Lake (APO 254, New York, N. Y.) Lt. Col., A.U.S.
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) Capt., A.U.S.
Witte, H. J., Marathon (APO 350, New York, N. Y.) Major, A.U.S.

Butler County

Andersen, B. V., Greene (San Diego, Cal.) Lt., U.S.N.R.
James, R. A., Allison (Mare Island, Cal.) Lt. Col., A.U.S.
Rofls, F. O., Parkersburg (Springfield, Mo.) 1st Lt., A.U.S.

Calhoun County

Grinley, A. V., Rockwell City (APO 350, New York, N. Y.) Capt., A.U.S.
Hobart, F. W., Lake City (Camp Grant, Ill.) Capt., A.U.S.
McVay, M. J., Lake City (Waco, Texas) Capt., A.U.S.

Peck, L. H., Lake City (Camp Carson, Colo.) Capt., A.U.S.
Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
Weyer, J. J., Lohrville (APO 465, New York, N. Y.) Capt., A.U.S.

Carroll County

Anneberg, A. R., Carroll (APO 70, San Francisco, Cal.) Capt., A.U.S.
Anneberg, W. A., Carroll (APO 367, New York, N. Y.) Capt., A.U.S.
Cochran, J. L., Carroll (Gulfport, Miss.) Lt., U.S.N.R.
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Freedland, Maurice, Coon Rapids
Morrison, J. R., Carroll (APO New York) Major, A.U.S.
Morrison, R. B., Carroll (APO 634, New York, N. Y.) Capt., A.U.S.
Pascoe, P. L., Carroll (Bowman Field, Ky.) Capt., A.U.S.
Scannell, R. C., Carroll (Denver, Colo.) Capt., A.U.S.
Tindall, R. N., Coon Rapids (Hines, Ill.) Major, A.U.S.
Wyatt, M. R., Manning (Stuttgart, Ark.) Capt., A.U.S.

Cass County

Egbert, D. S., Atlantic (APO 218, New York N. Y.) Major, A.U.S.
Ergenbright, W. V., Atlantic (APO 957, San Francisco, Cal.) Capt., A.U.S.
Needles, R. M., Atlantic (APO 131, New York, N. Y.) Capt., A.U.S.
Petersen, M. T., Atlantic (Topeka, Kan.) Capt., A.U.S.
Schiff, Joseph, Anita (Rochester, Minn.) 1st Lt., A.U.S.

Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.) Lt., U.S.N.R.
Mosher, M. L., West Branch (APO 560, New York, N. Y.) Capt., A.U.S.
O'Neal, H. E., Tipton (Minneapolis, Minn.) Lt. Col., A.U.S.

Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.) Major, A.U.S.
Egloff, W. C., Mason City (APO 17130, New York, N. Y.) Capt., A.U.S.
Flickinger, R. R., Mason City (Memphis, Tenn.) Capt., A.U.S.
Hale, A. E., Dougherty (Atlanta, Ga.) Capt., A.U.S.
Harris, R. H., Mason City (Dyersburg, Tenn.) Capt., A.U.S.
Harrison, G. E., Mason City (APO 365, New York, N. Y.) Col., A.U.S.
Houlahan, J. E., Mason City (APO 838, New Orleans, La.) Capt., A.U.S.
Lannon, J. W., Clear Lake (APO 230, New York, N. Y.) Capt., A.U.S.
Long, D. L., Mason City (APO 520, New York, N. Y.) Capt., A.U.S.
Morgan, P. W., Mason City (Camp Butler, N. Car.) Capt., A.U.S.
Sternhill, Irving, Mason City (Ayer, Mass.) Capt., A.U.S.

Cherokee County

Bullock, G. D., Washta (APO 17583, New York, N. Y.) Capt., A.U.S.
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) Major, A.U.S.
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) Capt., A.U.S.

Chickasaw County

Caulfield, J. D., New Hampton (APO 178, New York, N. Y.) Major, A.U.S.
Murphy, A. L., Fredericksburg (Ft. Leavenworth, Kan.) Capt., A.U.S.
O'Connor, E. C., New Hampton (Redmond, Ore.) Capt., A.U.S.
Richmond, P. C., New Hampton (APO 88, New York, N. Y.) Major, A.U.S.

Clarke County

Armitage, G. I., Murray (APO 629, New York, N. Y.) Capt., A.U.S.

Clay County

Edington, F. D., Spencer (APO 649, New York, N. Y.) Col., A.U.S.
Jones, C. C., Spencer (Farragut, Idaho) Lt., U.S.N.R.
King, D. H., Spencer (Peterson Field, Colo.) Capt., A.U.S.

Clayton County

Andersen, H. M., Strawberry Point (Camp Crowder, Mo.) Capt., A.U.S.
Glesne, O. G., Monona (Knoxville, Iowa) Capt., A.U.S.
Rhomburg, E. B., Guttenberg (APO 584, New York, N. Y.) Capt., A.U.S.

Clinton County

Amesbury, H. A., Clinton (Vancouver, Wash.) Major, A.U.S.
Burke, J. C., Clinton (Great Bend, Kan.) A.U.S.
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) Capt., A.U.S.
Hill, D. E., Clinton (APO 9787, New York, N. Y.) Capt., A.U.S.
King, R. C., Clinton (Clinton, Iowa) Capt., A.U.S.
Lenaghan, R. T., Clinton (Olathe, Kans.) Lt. Comdr., U.S.N.R.

Norment, J. E., Clinton (San Bruno, Cal.)....Comdr., U.S.N.R.
 Riedesel, E. V., Wheatland (Fort Douglas, Utah)
 Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.)...Capt., A.U.S.
 Snyder, D. C., De Witt (APO 520, New York, N. Y.)...Capt., A.U.S.
 Speigel, I. J., Clinton (Galesburg, Ill.).....Capt., A.U.S.
 Van Epps, E. F., Clinton (APO 9921, New York,
 N. Y.).....Capt., A.U.S.
 Waggoner, C. V., Clinton (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Wells, L. L., Clinton (APO 562, New York, N. Y.)...Capt., A.U.S.

Crawford County

Fee, C. H., Denison (APO 696, New York, N. Y.)...Major, A.U.S.
 Grau, A. H., Denison, (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Maire, E. J., Vail (APO 18085, New York, N. Y.)...Capt., A.U.S.
 Wetrich, M. F., Manila (APO 986, Seattle, Wash.)...Capt., A.U.S.

Dallas-Guthrie Counties

Butterfield, E. T., Dallas Center (Fort Sheridan,
 Ill.).....1st Lt., A.U.S.
 Byrnes, A. W., Guthrie Center (Fort Custer, Mich.)...Major, A.U.S.
 Fail, C. S., Adel (Fleet PO, San Francisco, Cal.)...Lt. U.S.N.R.
 Margolin, J. M., Perry (APO 5816, New York,
 N. Y.).....Capt., A.U.S.
 McGilvra, R. L., Guthrie Center (Ames, Iowa).....Lt., U.S.N.R.
 Mullmann, A. J., Adel (APO 565, San Fran-
 cisco, Cal.).....Capt., A.U.S.
 Nicoll, C. A., Panora (APO 339, New York, N. Y.)...Major, A.U.S.
 Osborn, C. R., Dexter (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Todd, D. W., Guthrie Center (APO 2, New York,
 N. Y.).....Capt., A.U.S.
 Wilke, F. A., Woodward.....Capt., A.U.S.

Davis County

Fenton, C. D., Bloomfield (APO 5253, New York,
 N. Y.).....Capt., A.U.S.
 Gillfillan, G. W., Bloomfield (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Decatur County

Gamet, E. E., Lamoni (APO New York, N. Y.)....Major, A.U.S.

Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York,
 N. Y.).....Capt., A.U.S.
 Clark, R. E., Manchester (APO 419, New York, N. Y.)
Capt., A.U.S.

Des Moines County

Eigenfeld, M. L., Burlington (Cleveland, Ohio)...1st Lt., A.U.S.
 Heitzman, P. O., Burlington (Port Lewis, Wash.)...Capt., A.U.S.
 Jenkins, G. D., Burlington (West Point, N. Y.)...Lt. Col., A.U.S.
 Lohmann, C. J., Burlington (APO 708, San Fran-
 cisco, Cal.).....Major, A.U.S.
 McKitterick, J. C., Burlington (Hamilton,
 R. I.).....Comdr., U.S.N.R.
 Moerke, R. F., Burlington (APO 565, San Francisco,
 Cal.).....Capt., A.U.S.
 Sage, E. C., Burlington (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Dickinson County

Buchanan, J. J., Milford (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Henning, G. G., Milford (APO 96, San Francisco,
 Cal.).....Major, A.U.S.
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.)...Capt., A.U.S.
 Rodawig, D. F., Spirit Lake (Topeka, Kan.).....Major, A.U.S.

Dubuque County

Anderson, E. E., Dubuque (Bradley Field, Conn.)...Capt., A.U.S.
 Beddoes, M. G., Cascade (APO 709, San Francisco,
 Cal.).....Capt., A.U.S.
 Conzett, D. C., Dubuque (APO 887, New York,
 N. Y.).....Lt. Col., A.U.S.
 Cunningham, J. C., Dubuque (Fairfield, Ohio)...Capt., A.U.S.
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.)
Major, A.U.S.
 Entringer, A. J., Dubuque (APO 41, San Francisco,
 Cal.).....Capt., A.U.S.
 Hall, C. B., Dubuque (Indiantown Gap, Pa.)...Capt., A.U.S.
 Knoll, A. H., Dubuque (San Francisco, Cal.)...Major, A.U.S.
 Langford, W. R., Epworth (Miami Beach, Fla.)...Capt., A.U.S.
 Lavery, H. B., Dubuque (Washington, D. C.)...Lt. Col., A.U.S.
 Leik, D. W., Dubuque (Wichita Falls, Tex.)...Capt., A.U.S.
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.)...Capt., A.U.S.
 Olson, P. F., Dubuque (San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Painter, R. C., Dubuque (Salt Lake City, Utah)...Lt., U.S.N.R.
 Paulus, J. W., Dubuque (APO 115, New York,
 N. Y.).....Capt., A.U.S.
 Plankers, A. G., Dubuque (APO 464 New York,
 N. Y.).....Major, A.U.S.
 Quinn, E. P., Dubuque (Brooklyn, N. Y.).....Major, A.U.S.
 Scharle, Theodore, Dubuque (APO 17570, New York,
 N. Y.).....Capt., A.U.S.
 Schueller, C. J., Dubuque (APO 758, New York,
 N. Y.).....1st Lt., A.U.S.
 Sharpe, D. C., Dubuque (APO 562, New York,
 N. Y.).....Major, A.U.S.
 Smith, C. W., Dubuque (Shoemaker, Cal.)...Lt., U.S.N.R.
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.)...Lt. Col., A.U.S.
 Straub, J. J., Dubuque (Bethesda, Md.)...Lt. Comdr., U.S.N.R.
 Ward, D. F., Dubuque (Great Lakes, Ill.)...Lt. Comdr., U.S.N.R.

Emmet County

Clark, J. P., Estherville (APO New York, N. Y.)...Capt., A.U.S.

Collins, L. E., Estherville (APO 247, San Fran-
 cisco, Cal.).....1st Lt., A.U.S.
 Miller, O. H., Estherville (Seattle, Wash.)...Lt. Comdr., U.S.N.R.

Fayette County

Gallagher, J. P., Oelwein (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Henderson, W. B., Oelwein (St. Louis, Mo.)...Lt. Col., A.U.S.
 Sulzbach, J. F., Oelwein
 Walsh, W. E., Hawkeye (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Floyd County

Baltzell, W. C., Charles City (APO 2, New York,
 N. Y.).....Major, A.U.S.
 Flater, N. C., Floyd (APO 350, New York, N. Y.)...Capt., A.U.S.
 Knight, R. A., Rockford (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Mackie, D. G., Charles City (APO 215, New York,
 N. Y.).....Capt., A.U.S.
 Miner, J. B., Jr., Charles City (San Diego, Cal.)...Lt., U.S.N.R.
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.)
Capt., A.U.S.

Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) 1st Lt., A.U.S.
 Hedgecock, L. E., Hampton (Camp Lejeune,
 N. Car.).....Lt. Comdr., U.S.N.R.
 Randall, W. L., Hampton (Oceanside, Cal.)...Lt., U.S.N.R.
 Walton, S. G., Hampton (APO New York, N. Y.)...Capt., A.U.S.

Fremont County

Kerr, W. H., Hamburg (APO 926, San Francisco,
 Cal.).....Capt., A.U.S.
 Marrs, W. D., Tabor (Ardmore, Okla.)...Capt., A.U.S.
 Powell, R. A., Farragut (Fleet PO, San Fran-
 cisco, Cal.).....Lt. Comdr., U.S.N.R.
 Wanamaker, A. R., Hamburg (APO 939, Seattle,
 Wash.).....Capt., A.U.S.

Greene County

Cartwright, F. P., Grand Junction (APO 511, New York,
 N. Y.).....Capt., A.U.S.
 Castles, W. A., Rippey (APO 958, San Francisco, Cal.)
Major, A.U.S.
 Hanson, L. C., Jefferson (APO 728, New York, N. Y.)
Capt., A.U.S.
 Jongewaard, A. J., Jefferson (Fleet PO, San
 Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Limburg, J. I., Jr., Jefferson (APO 927, San Francisco,
 Cal.).....Major, A.U.S.
 Lohr, P. E., Churdan (Cleveland, Ohio).....Lt., U.S.N.R.

Grundy County

Cullison, R. M., Dike (Fort Howard, Md.)...Major, A.U.S.
 Rose, J. E., Grundy Center (Fleet PO, New York,
 N. Y.).....Lt. Comdr., U.S.N.R.

Hamilton County

Buxton, O. C., Webster City (APO 9921, New York,
 N. Y.).....1st Lt., A.U.S.
 Howar, B. F., Jewell (APO 514, New York, N. Y.)...Major, A.U.S.
 James, D. W., Kamrar (APO 464, New York, N. Y.)
Capt., A.U.S.
 Lewis, W. B., Webster City (APO 383, New York,
 N. Y.).....Major, A.U.S.
 Mooney, F. P., Jewell (London, England).....Capt., R.A.M.C.
 Paschal, G. A., Williams (Camp Crowder, Mo.)...Capt., A.U.S.
 Patterson, R. A., Webster City (San Diego,
 Cal.).....Lt. Comdr., U.S.N.R.
 Ptacek, J. L., Webster City (APO 140, New York,
 N. Y.).....Capt., A.U.S.
 Schrader, M. A., Webster City (Topeka, Kan.)...1st Lt., A.U.S.
 Thompson, E. D., Webster City (Biloxi, Miss.)...Capt., A.U.S.

Hancock-Winnebag Counties

Dulmes, A. H., Klemme (APO 782, New York,
 N. Y.).....Capt., A.U.S.
 Eller, L. W., Kanawha (APO 302, New York,
 N. Y.).....Capt., A.U.S.
 Irish, T. J., Forest City (Fleet PO, San Fran-
 cisco, Cal.).....Lt. Comdr., U.S.N.R.
 Shaw, D. F., Britt (APO 246, Unit 2, San Francisco,
 Cal.).....Major, A.U.S.
 Thomas, C. W., Forest City (APO 519, New York,
 N. Y.).....Major, A.U.S.

Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.)...Lt., U.S.N.R.
 Houlihan, F. W., Ackley (APO 860, New York,
 N. Y.).....1st Lt., A.U.S.
 Jansonius, J. W., Eldora (APO 4834, New York,
 N. Y.).....Capt., A.U.S.
 Johnson, R. J., Iowa Falls (APO 514, New York,
 N. Y.).....Capt., A.U.S.
 Johnson, W. A., Alden (Orlando, Fla.).....Capt., A.U.S.
 Shurts, J. J., Eldora (Camp Roberts, Cal.)...1st Lt., A.U.S.
 Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Todd, V. S., Eldora (APO 70, San Francisco, Cal.)...Capt., A.U.S.

Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Ord, Cal.)...Capt., A.U.S.
 Burbridge, G. E., Logan (APO 511, New York,
 N. Y.).....Major, A.U.S.
 Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.)...Capt., A.U.S.
 Heise, C. A., Jr., Missouri Valley (Fleet PO, San
 Francisco, Cal.).....Lt., U.S.N.R.
 Tamisiea, F. X., Missouri Valley (APO 562, New York,
 N. Y.).....Capt., A.U.S.

Henry County

Brown, W. B., Mount Pleasant (APO 571, New York,
 N. Y.).....Major, A.U.S.

Dwankowski, Carl, Mt. Pleasant (APO 511, New York, N. Y.).....Capt., A.U.S.
 Gloeckler, B. B., Mount Pleasant (APO 9768, New York, N. Y.).....Capt., A.U.S.
 Hartley, B. D., Mount Pleasant (APO 17130, New York, N. Y.).....Capt., A.U.S.
 Megorden, W. H., Mount Pleasant (Ogden, Utah).....Capt., A.U.S.
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.).....Major, A.U.S.

Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Nerling, P. A., Cresco (APO 43, San Francisco, Cal.).....Capt., A.U.S.

Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.).....Capt., A.U.S.
 Coddington, J. H., Humboldt (Oklahoma City, Okla.).....Capt., A.U.S.

Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.).....Capt., A.U.S.
 Martin, J. W., Holstein (Albany, Ga.).....Capt., A.U.S.

Iowa County

Geiger, U. S., North English (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 McDaniel, J. D., Marengo (APO 1010, San Francisco, Cal.).....Capt., A.U.S.
 Miller, D. F., Williamsburg (San Diego, Cal.).....Lt., U.S.N.R.

Jackson County

Bausch, R. G., Bellevue (APO 251, New York, N. Y.).....Capt., A.U.S.
 Skelley, P. B., Jr., Maquoketa (Ft. Lewis, Wash.).....1st Lt., A.U.S.
 Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.).....Major, A.U.S.

Jasper County

Doake, Clarke, Newton.....1st Lt., A.U.S.
 Minkel, R. M., Newton (APO New York, N. Y.).....Lt. Col., A.U.S.
 Ritchey, S. J., Newton.....Lt. Col., A.U.S.

Jefferson County

Castell, J. W., Fairfield (APO 9907, New York, N. Y.).....Capt., A.U.S.
 Frey, Harry, Fairfield (Norfolk, Va.).....Lt. Comdr., U.S.N.R.
 Gittler, Ludwig, Fairfield.....Lt. Col., A.U.S.
 Graber, H. E., Fairfield (Camp Cooke, Cal.).....Major, A.U.S.
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

Johnson County

Agnew, J. W., Iowa City (APO 17604, New York, N. Y.).....Capt., A.U.S.
 Albert, S. M., Iowa City (APO 9622, New York, N. Y.).....1st Lt., A.U.S.
 Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.
 Anderson, E. N., Iowa City (APO 647, New York, N. Y.).....Major, A.U.S.
 Boyd, E. J., Iowa City (APO 140, New York, N. Y.).....Capt., A.U.S.
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco, Cal.).....Lt. Col., A.U.S.
 Bunge, R. G., Iowa City (Biloxi, Miss.).....1st Lt., A.U.S.
 Callahan, G. D., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Coburn, F. E., Iowa City (Toronto, Canada).....Capt., R.C.A.
 Cooper, W. K., Iowa City (Mitchell Field, N. Y.).....Capt., A.U.S.
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.).....Capt., A.U.S.
 Diddle, A. W., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Dörner, R. A., Iowa City (APO 230, New York, N. Y.).....Capt., A.U.S.
 Elmquist, H. S., Iowa City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 Emmons, M. B., Iowa City (Camp Bowie, Texas).....Capt., A.U.S.
 Flax, Ellis, Iowa City (APO 5838, New York, N. Y.).....1st Lt., A.U.S.
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.
 Fourt, A. S., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.
 Francis, N. L., Iowa City (Annapolis, Md.).....Lt. (jg), U.S.N.R.
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.
 Garlinghouse, R. O., Iowa City (Ft. Riley, Kan.).....Lt. Col., A.U.S.
 Hardin, R. C., Iowa City (APO 508, New York, N. Y.).....Major, A.U.S.
 Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.
 Hessin, A. L., Iowa City (APO 452, New York, N. Y.).....Major, A.U.S.
 Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 January, L. E., Iowa City (Pyote, Texas).....Major, A.U.S.
 Kanealy, J. F., Iowa City (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.
 Keislar, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.
 Laubscher, J. H., Iowa City (Ft. Benning, Ga.).....1st Lt., A.U.S.
 Longwell, F. H., Iowa City (Daytona, Fla.).....Major, A.U.S.
 Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.
 Nagfy, S. F., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.
 Newman, R. W., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.
 Parkin, G. L., Iowa City (Mountain Home, Idaho).....1st Lt., A.U.S.
 Paulus, E. W., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.
 Petersen, V. W., Iowa City (APO 689, New York, N. Y.).....Col., A.U.S.
 Sells, R. L., Jr., Iowa City (Palmdale, Cal.).....Capt., A.U.S.
 Smith, H. F., Iowa City (New York, N. Y.).....Lt. Comdr., U.S.N.R.

Springer, E. W., Iowa City (APO 678, New York, N. Y.).....Capt., A.U.S.
 Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.
 Staggs, W. A., Iowa City.....Major, A.U.S.
 Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.
 Stump, R. B., Iowa City (Denver, Colo.).....Capt., A.U.S.
 Titus, E. L., Iowa City (Belmont, Mass.).....Col., A.U.S.
 Trapasso, T. J., Iowa City (APO 520, New York, N. Y.).....Capt., A.U.S.
 Trussell, R. E., Iowa City (APO 5467, San Francisco, Cal.).....Capt., A.U.S.
 Vest, W. M., Iowa City (Menlo Park, Cal.).....Capt., A.U.S.
 Ward, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Weatherly, H. E., Iowa City (APO 72, San Francisco, Cal.).....Capt., A.U.S.
 Wollmann, W. W., Iowa City (Staunton, Va.).....1st Lt., A.U.S.
 Ziffren, S. E., Iowa City (Springfield, Mo.).....1st Lt., A.U.S.

Junior Members

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.
 Black, N. M., Iowa City (McChord Field, Wash.).....1st Lt., A.U.S.
 Blair, J. D., Iowa City (APO San Francisco, Cal.).....Major, A.U.S.
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.
 Brintnall, E. S., Iowa City (Colorado Springs, Colo.).....1st Lt., A.U.S.
 Burr, S. P., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.
 Carney, R. G., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Connole, J. F., Iowa City (Camp Bowie, Texas).....1st Lt., A.U.S.
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.).....1st Lt., A.U.S.
 Coulson, F. H., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
 Decker, C. E., Iowa City (Oklahoma City, Okla.).....1st Lt., A.U.S.
 Donnelly, B. A., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.
 Ehrenhaft, J. L., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.
 Englerth, F. L., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.
 Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.
 Glassman, A. L., Iowa City (Palm Springs, Cal.).....1st Lt., A.U.S.
 Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.
 Harms, G. E., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Hendricks, A. B., Iowa City (Klamath Falls, Ore.).....Lt., U.S.N.
 Hovis, Wm., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.
 Jacobs, C. A., Iowa City (APO New York, N. Y.).....Major, A.U.S.
 Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.).....1st Lt., A.U.S.
 Kell, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.
 Kelberg, M. R., Iowa City (Alameda, Cal.).....Lt., U.S.N.R.
 Keleher, M. F., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.
 Keohon, G. F., Iowa City (Camp Grant, Ill.).....Capt., A.U.S.
 Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.
 Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.
 McCann, J. P., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 McQuiston, W. O., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.
 Moen, B. H., Iowa City.....1st Lt., A.U.S.
 Moon, R. E., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.
 Odell, Lester, Iowa City (Pensacola, Fla.).....Lt. (jg), U.S.N.R.
 Phillips, R. M., Iowa City (San Francisco, Cal.).....1st Lt., A.U.S.
 Pulliam, R. L., Iowa City (APO 350, New York, N. Y.).....Major, A.U.S.
 Randall, C. G., Iowa City.....Capt., A.U.S.
 Randall, R. G., Iowa City (Waterloo, Iowa).....Capt., A.U.S.
 Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.
 Russin, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.
 Saar, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
 Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.
 Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Shand, J. A., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Shapiro, S. I., Iowa City.....A.U.S.
 Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.
 Skewis, J. E., Iowa City (Corona, Cal.).....Lt., U.S.N.R.
 Skouge, O. T., Iowa City.....Lt., U.S.N.R.
 Towle, P. A., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.
 Watters, V. G., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.
 Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.
 Williams, L. A., Iowa City (Treasure Island, Cal.).....1st Lt., A.U.S.
 Willumsen, H. C., Iowa City (Denver, Colo.).....Capt., A.U.S.
 Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.
 Yetter, W. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
 Zahrt, N. E., Iowa City (Keesler Field, Miss.).....Capt., A.U.S.
 Zimmerman, H. A., Iowa City (Santa Ana, Cal.).....1st Lt., A.U.S.

Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.).....Capt., A.U.S.
 Doyle, J. L., Sigourney (Camp Barkeley, Texas).....A.U.S.
 Engelmann, A. T., What Cheer (Camp Polk, La.).....Capt., A.U.S.
 Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.
 Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.
 Wiley, Dudley, Hedrick (Mason City, Wash.).....

Kossuth County

Clapsaddle, D. W., Burt (Denver, Colo.).....Capt., A.U.S.
Corbin, R. L., Luverne (Des Moines, Iowa).....Capt., A.U.S.
Keneffick, J. N., Algona (Fleet PO, San Francisco,
Cal.).....Lt. Comdr., U.S.N.R.
Williams, R. L., Lakota (Iowa City, Iowa).....Lt. Comdr., U.S.N.R.

Lee County

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.
Cleary, H. G., Fort Madison (Ft. Benning, Ga.).....Capt., A.U.S.
Cooper, R. E., Keokuk (APO 565, San Francisco, Cal.) Capt., A.U.S.
Johnstone, A. A., Keokuk (APO 942, Seattle, Wash.) Col., A.U.S.
McKee, T. L., Keokuk (Miami Beach, Fla.).....Major, A.U.S.
Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) Major, A.U.S.
Rankin, J. R., Keokuk (Memphis, Tenn.).....Lt., U.S.N.R.
Richmond, A. C., Fort Madison (San Bruno,
Cal.).....Lt. Comdr., U.S.N.R.
Steffey, F. L., Keokuk (Fort Snelling, Minn.)
Van Werden, B. D., Keokuk (APO 4777, New York,
N. Y.).....Capt., A.U.S.
Younan, Thomas, Ft. Madison (APO 464, New York,
N. Y.).....Capt., A.U.S.

Linn County

Andre, G. R., Lisbon (APO 90, New York, N. Y.).....Lt. Col., A.U.S.
Berney, P. W., Cedar Rapids (APO 207, New York, N.
Y.).....Capt., A.U.S.
Block, W. M., Cedar Rapids (APO 926, San Francisco,
Cal.).....Capt., A.U.S.
Chapman, E. M., Cedar Rapids (Chicago, Ill.).....Capt., A.U.S.
Coughlan, V. H., Coggon (Fort Snelling, Minn.).....A.U.S.
Cortner, W. O., Springville (APO 464, New York,
N. Y.).....Major, A.U.S.
Downing, J. S., Cedar Rapids (APO 565, San Francisco,
Cal.).....Lt. Col., A.U.S.
Dunn, F. C., Cedar Rapids (Winfield, Kan.).....Major, A.U.S.
Gearhart, Merriam, Springville (APO 204, New York,
N. Y.).....Major, A.U.S.
Gerstman, Herbert, Marion (APO 862, New York,
N. Y.).....Capt., A.U.S.
Halpin, L. J., Cedar Rapids (APO 957, San Francisco,
Cal.).....Major, A.U.S.
Hecker, J. T., Cedar Rapids (APO 758, New York,
N. Y.).....Capt., A.U.S.
Jirsa, H. O., Cedar Rapids (APO 871, New York,
N. Y.).....Lt. Col., A.U.S.
Keith, J. J., Marion (Menlo Park, Cal.).....Major, A.U.S.
Kleck, E. G., Cedar Rapids (San Diego, Cal.) Lt. Comdr., U.S.N.R.
Kruckenberg, W. G., Mount Vernon (Fleet PO, San
Francisco, Cal.).....Lt., U.S.N.R.
Leedham, C. L., Springville (Camp Campbell, Ky.).....Col., A.U.S.
Locher, R. C., Cedar Rapids (APO 18085, New York,
N. Y.).....Major, A.U.S.
Locher, R. C., Cedar Rapids (Camp Gruber, Okla.) Major, A.U.S.
†MacDougal, R. F., Cedar Rapids (APO 9057, New York,
N. Y.).....Capt., A.U.S.
McConkie, E. B., Cedar Rapids (Hines, Ill.).....Major, A.U.S.
McQuiston, J. S., Cedar Rapids (Fort Warren,
Wyo.).....Lt. Col., A.U.S.
Meffert, C. B., Cedar Rapids (APO 403, New York,
N. Y.).....Lt. Col., A.U.S.
Murray, E. S., Cedar Rapids (APO 512, New York,
N. Y.).....Lt. Col., A.U.S.
Netolicky, R. Y., Cedar Rapids (Hawthorne,
Nev.).....Lt. Comdr., U.S.N.R.
Noble, W. C., Cedar Rapids (Camp San Luis Obispo,
Cal.).....1st Lt., A.U.S.
Noe, C. A., Cedar Rapids (Hot Springs, Ark.).....Major, A.U.S.
Parke, John, Cedar Rapids.....Major, A.U.S.
Proctor, R. D., Cedar Rapids (Fleet PO, San Fran-
cisco, Cal.).....Comdr., U.S.N.R.
Redmond, J. J., Cedar Rapids (APO 813, New York,
N. Y.).....Major, A.U.S.
Rieniets, J. H., Cedar Rapids, (Charleston, S.
Car.).....Lt. Comdr., U.S.N.R.
Sedlacek, L. B., Cedar Rapids (APO 244, San Francisco,
Cal.).....Lt. Col., A.U.S.
Smrha, J. A., Cedar Rapids (Topeka, Kan.).....Capt., A.U.S.
Stansbury, J. R., Cedar Rapids (Fort Lewis,
Wash.).....Capt., A.U.S.
Stark, C. H., Cedar Rapids (Denver, Colo.).....Capt., A.U.S.
Sulek, A. E., Cedar Rapids (APO 244, San Fran-
cisco, Cal.).....Major, A.U.S.
Woodhouse, K. W., Cedar Rapids (APO 519, New York,
N. Y.).....Lt. Col., A.U.S.
Wray, R. M., Cedar Rapids (APO 958, San Francisco,
Cal.).....Major, A.U.S.
Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.)
.....Lt. Comdr., U.S.N.

Louisa County

DeYarman, K. T., Morning Sun (San Antonio,
Texas).....Capt., A.U.S.
Tandy, R. W., Morning Sun (Oakland,
Cal.).....Lt. Comdr., U.S.N.R.

Lucas County

Lister, K. E., Chariton (Fort Snelling, Minn.).....A.U.S.

Lyon County

Cook, S. H., Rock Rapids (Lordsburg, N. Mex.).....Major, A.U.S.
†Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Oflag 64,
Germany).....Capt., A.U.S.
Moriarty, J. F., Rock Rapids (APO 464, New York,
N. Y.).....Capt., A.U.S.

Madison County

Boden, H. N., Truro (Fresno, Cal.)
Chesnut, P. F., Winterset (Camp Gruber, Okla.)...Capt., A.U.S.
Veltman, J. F., Winterset (APO 957, San Francisco,
Cal.).....Capt., A.U.S.
Wicks, R. L., Winterset (APO 204, New York, N. Y.)
.....Lt. Col., A.U.S.

Mahaska County

Bennett, G. W., Oskaloosa (APO 9641, San Francisco,
Cal.).....Major, A.U.S.
Bos, H. C., Oskaloosa (APO 758, New York,
N. Y.).....Major, A.U.S.
Campbell, W. V., Oskaloosa (Fleet PO, San Francisco,
Cal.).....Lt. Comdr., U.S.N.R.
Clark, G. H., Oskaloosa (Mare Island, Cal.).....Lt. Comdr., U.S.N.R.
Gillett, R. M., Oskaloosa (Fleet PO, San Francisco,
Cal.).....Capt., U.S.N.
Greenlee, M. R., Oskaloosa (Port Hueneme,
Cal.).....Lt. Comdr., U. S.N.R.
Hibbs, R. E., Oskaloosa.....Capt., A.U.S.
Keohen, G. F., Oskaloosa (Washington, D. C.).....Major, A.U.S.
Lemon, K. M., Oskaloosa (APO 637, New York,
N. Y.).....Capt., A.U.S.
Reiley, R. E., Oskaloosa (APO 502, San Francisco,
Cal.).....Major, A.U.S.
Shurts, J. J., Oskaloosa (Fort Mason, Cal.).....Capt., A.U.S.
Zager, L. L., Oskaloosa (APO 436, New York,
N. Y.).....Capt., A.U.S.

Marion County

Elliott, V. J., Knoxville (APO 558, New York,
N. Y.).....Major, A.U.S.
Mater, D. A., Knoxville (Lincoln, Neb.).....Major, A.U.S.
Ralston, F. P., Knoxville (Indio, Cal.).....Capt., A.U.S.
Schiek, C. M., Knoxville.....Lt. Comdr., U.S.N.R.
Schroeder, M. C., Pella (Camp Livingston, La.).....Capt., A.U.S.
Williams, D. B., Knoxville.....Capt., A.U.S.

Marshall County

Carpenter, R. C., Marshalltown (APO 678 New York,
N. Y.).....Capt., A.U.S.
Marble, E. J., Marshalltown (Fleet PO, Can Francisco,
Cal.).....Lt. Comdr., U.S.N.R.
Marble, W. P., Marshalltown (Colorado Springs,
Colo.).....Major, A.U.S.
Meyer, M. G., Marshalltown (APO 513, New York,
N. Y.).....Major, A.U.S.
Noonan, J. J., Marshalltown (Fort Jackson,
S. Car.).....Lt. Col., A.U.S.
PHELPS, R. E., State Center (APO 7, San Francisco,
Cal.).....Capt., A.U.S.
Sinning, J. E., Melbourne (Rochester, Minn.).....Capt., A.U.S.
Smith, E. M., State Center (APO 520, New York,
N. Y.).....Lt. Col., A.U.S.
Stegman, J. J., Marshalltown (APO 520, New York,
N. Y.).....Major, A.U.S.
Wells, R. C., Marshalltown (Gowen Field, Idaho).....Capt., A.U.S.
Wolfe, O. D., Marshalltown (APO 937, Seattle
Wash.).....Capt., A.U.S.
Wolfe, R. M., Marshalltown (Mirimar, Cal.).....Lt., U.S.N.R.

Mills County

DeYoung, W. A., Glenwood (APO 228, New York,
N. Y.).....Capt., A.U.S.
Kuitert, J. H., Glenwood (St. Cloud, Minn.).....Major, A.U.S.
Magaret, E. C., Glenwood (APO 973, Minneapolis,
Minn.).....Capt., A.U.S.
Shonka, T. E., Malvern (APO 403, New York,
N. Y.).....Capt., A.U.S.

Mitchell County

Culbertson, R. A., St. Ansgar (APO 331, San
Francisco, Cal.).....Lt. Col., A.U.S.
Moore, E. E., Osage (APO 591, New York, N. Y.) Major, A.U.S.
Owen, W. E., Osage (Fleet PO, San Francisco, Cal.)
.....Lt. (jg), U.S.N.R.
Walker, T. G., Riceville (Fleet PO, New York,
N. Y.).....Lt., U.S.N.R.

Monona County

Almer, L. E., Moorhead (Fort Knox, Ky.).....Capt., A.U.S.
Anderson, S. N., Onawa (Camp Great Lakes, Ill.).....Lt., U.S.N.R.
Ganzhorn, H. L., Mapleton (APO 72, San Francisco,
Cal.).....Capt., A.U.S.
Gaukel, L. A., Onawa (Fort Riley, Kan.).....Capt., A.U.S.
†Harlan, M. E., Onawa (Fleet PO, San Francisco,
Cal.).....Lt. (jg), U.S.N.R.
Stauch, M. O., Whiting (Fort Lewis, Wash.).....Major, A.U.S.
Wainwright, M. T., Mapleton (Hines, Ill.).....Capt., A.U.S.
Wolpert, P. L., Onawa (Camp Attterbury, Ind.).....Capt., A.U.S.

Monroe County

Gilliland, C. H., Albia (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.
Helmann, V. R., Albia (Camp Maxey, Texas).....Capt., A.U.S.
Richter, H. J., Albia (Waco, Texas).....Major, A.U.S.
Smith, R. A., Albia (New Cumberland, Pa.).....Capt., A.U.S.

Montgomery County

Bastron, H. C., Red Oak (APO 951, San Francisco,
Cal.).....Major, A.U.S.
Hansen, F. A., Red Oak (Clarksville, Ark.).....Lt., U.S.N.R.
Nelson, C. C., Red Oak (Fleet PO, San Francisco,
Cal.).....Lt., U.S.N.R.
Panzer, E. J. C., Stanton (Fleet PO, San Francisco,
Cal.).....Lt. (jg), U.S.N.R.
Rost, G. S., Red Oak (Halstead, Kan.).....Capt., A.U.S.
Sorensen, E. M., Red Oak (Jefferson Barracks,
Mo.).....Capt., A.U.S.

Muscatine County

Ady, A. E., West Liberty (Beaufort, S. Car.)... Comdr., U.S.N.R.
 Asthalter, R. W., Muscatine (Fort Meade, Md.)... 1st Lt., A.U.S.
 Carlson, E. H., Muscatine (Louisville, Ky.)... Capt., A.U.S.
 Goad, R. R., Muscatine (Fleet PO, San Francisco, Cal.)... Comdr., U.S.N.R.
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) Major, A.U.S.
 Lindley, E. L., Muscatine (APO 6, San Francisco, Cal.)... Capt., A.U.S.
 Muhs, E. O., Muscatine (APO 578, New York, N. Y.)... Major, A.U.S.
 Norem, Walter, Muscatine (APO, Miami, Fla.)... Capt., A.U.S.
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.)... Capt., A.U.S.
 Sywassink, G. A., Muscatine (APO 488-"Y" Forces, New York, N. Y.)... Lt. Col., A.U.S.
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.)... Lt. Col., A.U.S.

O'Brien County

Getty, E. B., Primghar (APO 153, New York, N. Y.)... Capt., A.U.S.
 Hayne, W. W., Paullina (APO 638, New York, N. Y.)... Capt., A.U.S.
 Moen, S. T., Hartley (APO 689, New York, N. Y.)... Lt. Col., A.U.S.
 Myers, K. W., Sheldon (APO 559, New York, N. Y.)... Capt., A.U.S.

Osceola County

Kuntz, G. S., Sibley (APO 34, New York, N. Y.)... Capt., A.U.S.

Page County

Barnes, C. A., Shenandoah (APO New York, N. Y.)... Capt., A.U.S.
 Bauer, Frank, Shenandoah (APO New York, N. Y.)... A.U.S.
 Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.)... Capt., A.U.S.
 Bingham, E. N., Clarinda (Fort Ord, Cal.)... Major, A.U.S.
 Brush, Frederick, Shenandoah (APO New York, N. Y.)... A.U.S.
 Bunch, H. McK., Shenandoah (San Diego, Cal.)... Lt. Comdr., U.S.N.R.
 Burdick, F. D., Shenandoah (Denver, Colo.)... Capt., A.U.S.
 Burnett, F. K., Clarinda (APO 777, New York, N. Y.)... Major, A.U.S.
 Rausch, G. R., Clarinda (Sioux City, Iowa) ... Capt., A.U.S.
 Savage, L. W., Shenandoah (Fort Meade, Md.)... 1st Lt., A.U.S.
 Schwidde, Tilford, Shenandoah (APO New York, N. Y.)... A.U.S.

Palo Alto County

Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.)... Lt., U.S.N.R.

Plymouth County

Bowers, C. V., LeMars (APO New York, N. Y.)... 1st Lt., A.U.S.
 Fisch, R. J., LeMars (Denver, Colo.)... Capt., A.U.S.
 Foss, R. H., Remsen (Homestead, Fla.)... Capt., A.U.S.
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.)... Capt., A.U.S.

Pocahontas County

Blair, F. L., Jr., Fonda (San Antonio, Texas) ... Lt., U.S.N.R.
 Herrick, T. G., Gilmore City (APO 9375, New York, N. Y.)... Capt., A.U.S.
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.)... Capt., A.U.S.
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.)... Capt., A.U.S.
 Patterson, A. W., Fonda (Des Moines, Iowa) ... Capt., A.U.S.

Polk County

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.)... Lt. Comdr., U.S.N.R.
 Anderson, N. B., Des Moines (APO 667, New York, N. Y.)... Col., A.U.S.
 Angell, C. A., Des Moines (Ft. Bragg, N. Car.)... Capt., A.U.S.
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.)... Lt. Col., A.U.S.
 Barner, J. L., Des Moines (Atlanta, Ga.)... Major, A.U.S.
 Barnes, B. C., Des Moines (APO 4294, San Francisco, Cal.)... Major, A.U.S.
 Bates, M. T., Des Moines (Corona, Cal.)... Lt. Comdr., U.S.N.R.
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.)... 1st Lt., A.U.S.
 Bond, T. A., Des Moines (Shoemaker, Cal.)... Lt., U.S.N.R.
 Bone, H. C., Des Moines (Arlington, Cal.)... Major, A.U.S.
 Brown, A. W., Des Moines (APO 5934, New York, N. Y.)... Capt., A.U.S.
 Bruner, J. M., Des Moines (El Paso, Texas) ... Major, A.U.S.
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.)... 1st Lt., A.U.S.
 Burgess, F. M., Des Moines ... Capt., A.U.S.
 Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada) ... Flight Lt., R.C.A.F.
 Chambers, J. W., Des Moines (APO 667, New York, N. Y.)... Capt., A.U.S.
 Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.)... Lt., U.S.N.R.
 Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.)... Capt., A.U.S.
 Connell, J. R., Des Moines (APO 507, New York, N. Y.)... Major, A.U.S.
 Corn, H. H., Des Moines (Camp Beale, Cal.)... Capt., A.U.S.
 Coughlan, D. W., Des Moines (APO 689, New York, N. Y.)... Major, A.U.S.
 Crowley, D. F., Jr., Des Moines (Presque Isle, Me.)... Capt., A.U.S.
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.)... Capt., A.U.S.
 DeCicco, Ralph, Des Moines (APO 952, San Francisco, Cal.)... Capt., A.U.S.
 Decker, H. G., Des Moines (Long Beach, Cal.)... Lt. Comdr., U.S.N.R.

Downing, A. H., Des Moines (Ft. Snelling, Minn.)... 1st Lt., A.U.S.
 Dushkin, M. A., Des Moines (APO 689, New York, N. Y.)... Lt. Col., A.U.S.
 Elliott, O. A., Des Moines (Pecos, Texas) ... Capt., A.U.S.
 Ellis, H. G., Des Moines (APO 710, San Francisco, Cal.)... Capt., A.U.S.
 Ervin, L. J., Des Moines (Victoria, Texas) ... Lt. Col., A.U.S.
 Fleck, W. L., Des Moines (Ft. Howard, Md.)... Lt. Col., A.U.S.
 Fried, David, Des Moines (Carlisle Barracks, Penn.)... 1st Lt., A.U.S.
 Fracasse, John, Des Moines ... 1st Lt., A.U.S.
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.)... Lt. Comdr., U.S.N.R.
 Gerchek, E. W., Des Moines
 Gihson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.)... Major, A.U.S.
 Glomset, D. A., Des Moines (APO 9826 New York, N. Y.)... Capt., A.U.S.
 Goldberg, Louie, Des Moines (APO 926, San Francisco, Cal.)... Capt., A.U.S.
 Gordon, A. M., Des Moines (APO 464, New York, N. Y.)... Capt., A.U.S.
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.)... Lt., U.S.N.R.
 Greek, L. M., Des Moines (APO 512, New York, N. Y.)... Capt., A.U.S.
 Gurau, H. H., Des Moines (Malden, Mo.)... Capt., A.U.S.
 Haines, D. J., Des Moines (APO 453, San Francisco, Cal.)... Capt., A.U.S.
 Harris, D. D., Des Moines (Gulfport, Miss.)... Lt. Comdr., U.S.N.R.
 Harris, H. L., Des Moines (Salina, Kan.)... 1st Lt., A.U.S.
 Hess, John, Jr., Des Moines ... 1st Lt., A.U.S.
 James, A. D., Des Moines (Fort Eustis, Va.)... Comdr., U.S.N.R.
 Johnston, C. H., Des Moines (Randolph Field, Texas) ... Lt. Col., A.U.S.
 Kast, D. H., Des Moines (Fort Stevens, Ore.)... Capt., A.U.S.
 Kelley, E. J., Des Moines (Columbus, Ohio) ... Lt. Comdr., U.S.N.R.
 Kirch, W. A. W., Des Moines (Astoria, Ore.)... Lt. Comdr., U.S.N.R.
 Klocksiem, H. L., Des Moines (APO New York, N. Y.)... Capt., A.U.S.
 Kottke, E. E., Des Moines (Temple, Texas) ... Capt., A.U.S.
 Landis, S. N., Des Moines (West Palm Beach, Fla.)... 1st Lt., A.U.S.
 La Tona, Salvatore, Des Moines ... 1st Lt., A.U.S.
 Lederman James, Des Moines ... 1st Lt., R.C.A.
 Lehman, E. W., Des Moines (APO 565, San Francisco, Cal.)... Major, A.U.S.
 Losh, C. W., Jr., Des Moines (APO 209, New York, N. Y.)... Capt., A.U.S.
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.)... Lt. Comdr., U.S.N.R.
 Maloney, P. J., Des Moines (Fort Lewis, Wash.)... 1st Lt., A.U.S.
 Marquis, G. S., Des Moines (Brooklyn, N. Y.)... Lt. Comdr., U.S.N.R.
 Martin, L. E., Des Moines (Helena, Ark.)... 1st Lt., A.U.S.
 Matheson, J. H., Des Moines (San Leandro, Cal.)... Lt. Comdr., U.S.N.R.
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.)... Capt., A.U.S.
 McCoy, H. J., Des Moines (Iowa City, Iowa) ... Comdr., U.S.N.R.
 McDonald, D. J., Des Moines (APO 339, New York, N. Y.)... Major, A.U.S.
 McNamee, J. H., Des Moines (Fleet PO, San Francisco, Cal.)... Lt. Comdr., U.S.N.R.
 Mencher, E. W., Des Moines ... 1st Lt., A.U.S.
 Merkel, B. M., Des Moines ... Major, A.U.S.
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.)... Capt., A.U.S.
 Morden, R. P., Des Moines (APO 635, New York, N. Y.)... Capt., A.U.S.
 Mumma, C. S., Des Moines (Los Angeles, Cal.)... Major, A.U.S.
 Murphy, J. H., Des Moines (Fleet PO, San Francisco, Cal.)... Lt., U.S.N.R.
 Nelson, A. L., Des Moines (Camp Livingston, La.) Major, A.U.S.
 Noun, L. J., Des Moines (Camp Peary, Va.)... Lt., U.S.N.R.
 Noun, M. H., Des Moines (APO 228, New York, N. Y.)... Major, A.U.S.
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.)... Lt., U.S.N.
 Patton, B. W., Des Moines (Camp Robinson, Ark.)... 1st Lt., A.U.S.
 Pearlman, L. R., Des Moines (San Antonio, Texas) ... Major, A.U.S.
 Peisen, C. J., Des Moines (APO 165, New York, N. Y.)... Capt., A.U.S.
 Penn, E. C., West Des Moines (APO 650, New York, N. Y.)... Capt., A.U.S.
 Pfeiffer, E. P., Des Moines (APO 501, San Francisco, Cal.)... Capt., A.U.S.
 Phillips, A. B., Des Moines (Corona, Cal.)... Lt., U.S.N.R.
 Porter, R. J., Des Moines (APO 635, New York, N. Y.)... Capt., A.U.S.
 Powell, L. D., Des Moines (Oceanside, Cal.)... Capt., U.S.N.R.
 Pratt, E. B., Des Moines (APO New York, N. Y.)... Major, A.U.S.
 Priestley, J. B., Des Moines (APO 689, New York, N. Y.)... Lt. Col., A.U.S.
 Purdy, W. O., Des Moines (APO 5935, New York, N. Y.)... Capt., A.U.S.
 Riegelman, R. H., Des Moines (APO 559, New York, N. Y.)... Major, A.U.S.
 Robinson, V. C., Des Moines (Gulfport, Miss.)... Major, A.U.S.
 Rotkow, M. J., Des Moines (Camp Atterbury, Ind.)... Capt., A.U.S.

Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Schlaser, V. L., Des Moines (Hutchinson, Kan.) Lt., U.S.N.
 Shepherd, L. K., Des Moines (APO New York, N. Y.) Major, A.U.S.
 Shiffer, H. K., Des Moines (APO 230, New York, N. Y.) Capt., A.U.S.
 Singer, P. L., Des Moines (Camp Grant, Ill.) 1st Lt., A.U.S.
 Skultety, J. A., Des Moines (New Orleans, La.) P. A. Surg., U.S.P.H.S.
 Smead, H. H., Des Moines (APO 595, New York, N. Y.) Capt., A.U.S.
 Smith, H. J., Des Moines (Chicago, Ill.) Lt., U.S.N.R.
 Smith, R. T., Des Moines (APO 713, Unit I, San Francisco, Cal.) Capt., A.U.S.
 *Snodgrass, R. W., Des Moines (APO 9528, New York, N. Y.) Capt., A.U.S.
 Snyder, G. E., Grimes (APO 264, San Francisco, Cal.) Major, A.U.S.
 Sohm, H. A., Des Moines (Great Lakes, Ill.) Lt. Comdr., U.S.N.R.
 Sorensen, R. M., Des Moines (Topeka, Kan.) Major, U.S.P.H.S.
 Springer, F. A., Des Moines (Treasure Island, Cal.) Lt. Comdr., U.S.N.R.
 Stearns, A. B., Des Moines (Denver, Colo.) Major, A.U.S.
 Stickler, Robert, Des Moines (APO New York, N. Y.) Major, A.U.S.
 Stitt, P. L., Des Moines (Seattle, Wash.) Lt. (jg), U.S.N.R.
 Throckmorton, J. F., Des Moines (APO 339, New York, N. Y.) Major, A.U.S.
 Toutes, A. A., Des Moines (APO 635, New York, N. Y.) Capt., A.U.S.
 Turner, H. V., Des Moines (Camp Fannin, Texas) Capt., A.U.S.
 Undergraff, Thomas, Des Moines (Spokane, Wash.) 1st Lt., A.U.S.
 Van Hale, L. A., Des Moines (Clinton, Iowa) Major, A.U.S.
 Vaubel, E. K., Des Moines (Washington, D. C.) Capt., A.U.S.
 Wagner, E. C., Des Moines (Washington, D. C.) 1st Lt., A.U.S.
 Willett, W. M., Des Moines (APO 507, New York, N. Y.) Capt., A.U.S.
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Zarchy, A. C., Des Moines (Camp Cooke, Cal.) Capt., A.U.S.

Pottawattamie County

†Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.) Major, A.U.S.
 Collins, R. M., Council Bluffs (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Dean, A. M., Council Bluffs (Pensacola, Fla.) Comdr., U.S.N.R.
 Edwards, C. V., Council Bluffs (Pensacola, Fla.) Lt. Comdr., U.S.N.R.
 Floersch, E. B., Council Bluffs (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Hennessy, J. D., Council Bluffs (Shawnee, Okla.) Lt. Comdr., U.S.N.R.
 Jensen, A. L., Council Bluffs (Temple, Texas) Lt. Col., A.U.S.
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.) Lt., U.S.N.R.
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.) Capt., A.U.S.
 Lambert, E. M., Council Bluffs (APO 403, New York, N. Y.) Major, A.U.S.
 Maiden, S. D., Council Bluffs (Camp Hood, Texas) Major, A.U.S.
 Martin, L. R., Council Bluffs (Auburn, Cal.) Capt., A.U.S.
 Mathiasen, H. W., Neola (Alexandria, La.) Capt., A.U.S.
 Moskovitz, J. M., Council Bluffs (APO 403, New York, N. Y.) Capt., A.U.S.
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.) Capt., A.U.S.
 Standeven, W., Oakland (Colorado Springs, Colo.) Capt., A.U.S.
 Sternhill, Isaac, Council Bluffs (Camp Crowder, Mo.) Capt., A.U.S.
 Tinley, R. E., Council Bluffs (APO 600, New York, N. Y.) Major, A.U.S.
 Treynor, J. V., Council Bluffs (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 West, A. G., Council Bluffs (APO 230, New York, N. Y.) Capt., A.U.S.
 Wessler, R. J., Avoca (McChord Field, Wash.) A.U.S.
 Wurl, O. A., Council Bluffs (APO 887, New York, N. Y.) Lt. Col., A.U.S.

Poweshiek County

Brobyn, T. E., Grinnell (APO 18593, New York, N. Y.) Major, A.U.S.
 Hickerson, L. C., Brooklyn (APO 559, New York, N. Y.) Capt., A.U.S.
 Korfmacher, E. S., Grinnell (APO 923, San Francisco, Cal.) Capt., A.U.S.
 Niemann, T. V., Brooklyn (APO 43, San Francisco, Cal.) Capt., A.U.S.
 Parish, J. R., Grinnell (Oakland, Cal.) Lt. Comdr., U.S.N.R.
 Somers, P. E., Grinnell (St. Louis, Mo.) 1st Lt., A.U.S.

Ringgold County

Seaman, C. L., Mount Ayr (Fort Smith, Ark.) Major, A.U.S.

Sac County

Bassett, G. H., Sac City (Metairie, La.) Lt. Comdr., U.S.N.R.
 Deters, D. C., Schaller (APO 34, New York, N. Y.) Capt., A.U.S.
 Evans, W. I., Sac City (APO 9212, New York, N. Y.) Capt., A.U.S.
 Klocksiem, R. G., Odebolt (Oceanside, Cal.) Lt., U.S.N.R.
 Neu, H. N., Sac City (APO 708, San Francisco, Cal.) Lt. Col., A.U.S.

Scott County

†Baker, R. W., Davenport (APO 511, New York, N. Y.) Capt., A.U.S.

Balzer, W. J., Davenport (APO 569, New York, N. Y.) Capt., A.U.S.
 Bishop, J. F., Davenport (Camp Wheeler, Ga.) Capt., A.U.S.
 Block, L. A., Davenport (Cambridge, Ohio) Major, A.U.S.
 Boden, W. C., Davenport (APO 3760, New York, N. Y.) Capt., A.U.S.
 Boyer, U. S., Davenport (Rock Island, Ill.) Lt. Col., A.U.S.
 Brown, M. J., Davenport (APO 562, New York, N. Y.) Major, A.U.S.
 Carey, E. T., Davenport (APO 923, San Francisco, Cal.) 1st Lt., A.U.S.
 Christiansen, C. C., Dixon (APO 961, San Francisco, Cal.) Capt., A.U.S.
 Coleman, Tom, Davenport (APO 230, New York, N. Y.) Capt., A.U.S.
 Cummins, G. M., Jr., Davenport (Fort Custer, Mich.) Capt., A.U.S.
 Decker, C. E., Davenport (APO 321, San Francisco, Cal.) Major, A.U.S.
 Evans, H. J., Davenport (Daytona Beach, Fla.) Capt., A.U.S.
 Gibson, P. E., Davenport (Palm Springs, Cal.) Major, A.U.S.
 Goenne, Wm., Jr., Davenport (APO 91, New York, N. Y.) Capt., A.U.S.
 Hurevitz, H. M., Davenport (APO 370, New York, N. Y.) Major, A.U.S.
 Hurteau, Everett, Davenport (APO 647, New York, N. Y.) Capt., A.U.S.
 Hurteau, W. W., Davenport (Camp Berkeley, Texas) Major, A.U.S.
 Kimberley, L. W., Davenport (Oak Ridge, Tenn.) Capt., A.U.S.
 Krakauer, Max, Davenport (APO 758, New York, N. Y.) Capt., A.U.S.
 Kuhl, A. B., Jr., Davenport (Ft. Meade, Md.) 1st Lt., A.U.S.
 Ladage, L. H., Davenport (APO 339, New York, N. Y.) Major, A.U.S.
 Lorfeld, G. W., Davenport (Columbus, Ohio) Capt., A.U.S.
 McMeans, T. W., Davenport (APO 557, New York, N. Y.) Capt., A.U.S.
 Neufeld, R. J., Davenport (APO 565, Unit I, San Francisco, Cal.) Capt., A.U.S.
 Perkins, R. M., Davenport (APO 121B, New York, N. Y.) Capt., A.U.S.
 Sheeler, I. H., Davenport (APO 350, New York, N. Y.) Capt., A.U.S.
 Shorey, J. R., Davenport (APO 204, New York, N. Y.) Capt., A.U.S.
 Smazal, S. F., Davenport (APO 230, New York, N. Y.) Capt., A.U.S.
 Sorenson, A. C., Davenport (Oakland, Cal.) Comdr., U.S.N.R.
 Sunderbruch, J. H., Davenport (APO 322, San Francisco, Cal.) Capt., A.U.S.
 Weinberg, H. B., Davenport (APO 72, San Francisco, Cal.) Major, A.U.S.
 Zukerman, C. M., Bettendorf (Chicago, Ill.) Capt., A.U.S.

Shelby County

Bisgard, C. V., Harlan (Farragut, Idaho) Lt. Comdr., U.S.N.R.
 Griffith, W. O., Shelby (APO 9490, New York, N. Y.) Capt., A.U.S.
 McGowan, J. P., Harlan (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Sioux County

Gleysteen, R. R., Alton (Portsmouth, Va.) Lt. Comdr., U.S.N.
 Grossmann, E. B., Orange City (APO 403, New York, N. Y.) Capt., A.U.S.
 Larson, M. O., Hawarden (APO 562, New York, N. Y.) Lt. Col., A.U.S.
 Oelrich, A. M., Hull (APO New York, N. Y.) 1st Lt., A.U.S.
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.) 1st Lt., A.U.S.

Story County

Conner, J. D., Nevada (APO 708, San Francisco, Cal.) Capt., A.U.S.
 Fellows, J. G., Ames (APO 451, New York, N. Y.) Major, A.U.S.
 Lekwa, A. H., Story City (San Diego, Cal.) Lt. Comdr., U.S.N.R.
 McFarland, G. E., Jr., Ames (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 McFarland, J. E., Ames (Seattle, Wash.) Lt. Comdr., U.S.N.R.
 Rosebrook, L. E., Ames (APO 433, New York, N. Y.) Major, A.U.S.
 Sperow, W. B., (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Thorburn, O. L., Ames (Clovis, N. Mex.) Major, A.U.S.
 Wall, David, Ames (Ft. Dix, N. J.) 1st Lt., A.U.S.

Tama County

Bezman, H. S., Traer (APO 9875, New York, N. Y.) Capt., A.U.S.
 Boller, G. C., Traer (Ft. Riley, Kansas) Capt., A.U.S.
 Dobias, S. G., Chelsea (APO 86, San Francisco, Cal.) Capt., A.U.S.
 Havlik, A. J., Tama (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Schaeferle, L. G., Gladbrook (APO New York, N. Y.) Capt., A.U.S.
 Standefer, J. M., Tama (Des Moines, Iowa) Lt., U.S.N.R.

Taylor County

Hardin, J. F., Bedford (APO 952, San Francisco, Cal.) 1st Lt., A.U.S.

Union County

Reatty, H. G., Creston (New Orleans, La.) 1st Lt., A.U.S.
 Paragas, M. R., Creston (APO 442, San Francisco, Cal.) Capt., A.U.S.
 Ryan, C. J., Creston Capt., A.U.S.

Wapello County

Brentan, Emanuel, Ottumwa (Camp Carson, Colo.) Capt., A.U.S.
 Brody, Sidney, Ottumwa (Fort Belvoir, Va.) Lt. Col., A.U.S.
 Gillilan, C. D. N., Eldon (Battle Creek, Mich.) Capt., A.U.S.
 Howell, H. P., Ottumwa (Hamilton Field, Cal.) Major, A.U.S.

Hughes, R. O., Ottumwa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Moore, G. C., Ottumwa (APO 314, New York, N. Y.) Capt., A.U.S.
 Nelson, F. L., Jr., Ottumwa (Springfield, Mo.) Capt., A.U.S.
 Previtt, L. H., Ottumwa (Louisville, Ky.) Major, A.U.S.
 Selman, R. J., Ottumwa (El Paso, Texas) Col., A.U.S.
 Struble, G. C., Ottumwa (Cleveland, Ohio) Lt. Col., A.U.S.
 Whitehouse, W. N., Ottumwa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Warren County

Fullgrabe, E. A., Indianola (Fleet PO, New York, N. Y.) Lt., U.S.N.R.
 Hoffman, G. R., Lacona (Camp San Louis Obispo, Cal.) Capt., A.U.S.
 Shaw, E. E., Indianola (APO 834, New Orleans, La.) Capt., A.U.S.
 Trueblood, C. A., Indianola (APO 350, New York, N. Y.) Capt., A.U.S.

Washington County

Boice, C. L., Washington (Fleet PO, San Francisco, Cal.) Lt., U.S.N.
 Droz, A. K., Washington (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Mast, T. M., Washington (Arrowhead Springs, Cal.) Lt. Comdr., U.S.N.R.
 Miller, J. R., Wellman (APO New York, N. Y.) 1st Lt., A.U.S.
 Stufman, R. E., Washington (Patuxent River, Md.) Lt., U.S.N.R.
 Ware, S. C., Kalona (APO 218, New York, N. Y.) Capt., A.U.S.

Wayne County

Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.) Capt., A.U.S.

Webster County

Baker, C. J., Fort Dodge (APO New York, N. Y.) Major, A.U.S.
 Burch, E. S., Dayton (Palm Springs, Cal.) Capt., A.U.S.
 Burleson, M. W., Fort Dodge (Pasadena, Cal.) Capt., A.U.S.
 Coughlan, C. H., Fort Dodge (Camp Carson, Colo.) Major, A.U.S.
 Dawson, E. B., Fort Dodge (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Glesne, O. N., Ft. Dodge (New River, N. C.) Lt. Comdr., U.S.N.R.
 Joyner, N. M., Fort Dodge (Minneapolis, Minn.) A.U.S.
 Kluever, H. C., Fort Dodge (St. Louis, Mo.) Lt. Comdr., U.S.N.R.
 Larsen, H. T., Fort Dodge (Pensacola, Fla.) Lt., U.S.N.R.
 Shrader, J. C., Fort Dodge (APO 758, New York, N. Y.) Lt. Col., A.U.S.
 †Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.) Capt., A.U.S.
 Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.) Capt., A.U.S.
 Van Patten, E. M., Ft. Dodge (El Paso, Texas) Capt., A.U.S.

Winneshiek County

Fritchen, A. F., Decorah (Mare Island, Cal.) Comdr., U.S.N.R.
 Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.) Lt. Col., A.U.S.
 Howard, W. H., Decorah Capt., A.U.S.
 Larson, L. E., Decorah (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Svendsen, R. N., Decorah (San Diego, Cal.) Lt. (jg), U.S.N.R.
 Van Besien, G. J., Decorah (Springfield, Mo.) Capt., A.U.S.

Woodbury County

Bettler, P. L., Sioux City (APO 235, San Francisco, Cal.) Lt. Col., A.U.S.
 Blackstone, M. A., Sioux City (Camp Stoneman, Cal.) Capt., A.U.S.
 Boe, Henry, Sioux City (Fort Snelling, Minn.) Capt., A.U.S.
 Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 ‡Cmeyla, P. M., Sioux City (P.O.W., c/o Japanese Red Cross, Tokyo, Japan) Capt., A.U.S.
 Cowan, J. A., Sioux City (Oklahoma City, Okla.) Major, U.S.P.H.S.
 Crowder, R. E., Sioux City (Kansas City, Mo.) Lt. Comdr., U.S.N.R.
 Dimsdale, L. J., Sioux City (Clinton, Iowa) Capt., A.U.S.
 Down, H. I., Sioux City (APO 758, New York, N. Y.) Lt. Col., A.U.S.
 Elson, V. J., Danbury (APO 9875, New York, N. Y.) Capt., A.U.S.
 Frank, L. J., Sioux City (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Graham, J. W., Sioux City (Pensacola, Fla.) Lt. Comdr., U.S.N.R.
 Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.) Capt., A.U.S.
 Harris, D. M., Sioux City (APO 444, New York, N. Y.) Capt., A.U.S.
 Heffernan, C. E., Sioux City (APO 17682, San Francisco, Cal.) Capt., A.U.S.
 Hicks, W. K., Sioux City (Spokane, Wash.) Major, A.U.S.
 Honke, E. M., Sioux City (Palm Springs, Cal.) Major, A.U.S.
 Kaplan, David, Sioux City (APO 36, New York, N. Y.) Capt., A.U.S.
 Knott, P. D., Sioux City (Camp Crowder, Mo.) Capt., A.U.S.
 Knott, R. C., Sioux City (APO 403, New York, N. Y.) Major, A.U.S.
 Krigten, W. M., Sioux City (Springfield, Mo.) Lt. Col., A.U.S.
 Lande, J. N., Sioux City (APO 63, New York, N. Y.) Major, A.U.S.
 Martin, R. F., Sioux City (APO 403, New York, N. Y.) Capt., A.U.S.
 Mattice, L. H., Danbury (APO 713, San Francisco, Cal.) 1st Lt., A.U.S.

McCuiston, H. M., Sioux City (APO 209, New York, N. Y.) Capt., A.U.S.
 Mogan, R. C., Sioux City (Miami Beach, Fla.) Capt., A.U.S.
 Osineup, P. W., Sioux City (APO 520, New York, N. Y.) Capt., A.U.S.
 Rarick, I. H., Sioux City (Camp Pinedale, Cal.) Capt., A.U.S.
 Reeder, J. E., Jr., Sioux City (APO 209, New York, N. Y.) Capt., A.U.S.
 Ryan, M. J., Sioux City (Topeka, Kan.) Major, A.U.S.
 Schwartz, J. W., Sioux City (APO 883, New York, N. Y.) Lt. Col., A.U.S.
 Tracy, J. S., Sioux City (APO 569, New York, N. Y.) Major, A.U.S.

Worth County

Westly, G. S., Manly (APO 927, San Francisco, Cal.) Major, A.U.S.

Wright County

Aagesen, C. A., Dows (APO 383, New York, N. Y.) Capt., A.U.S.
 Bird, R. G., Clarion (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Doles, E. A., Clarion (Spokane, Wash.) Capt., A.U.S.
 Gorrell, R. L., Clarion (Denver, Colo.) P.A. Surg., U.S.P.H.S.
 Leinbach, S. F., Belmond (Farragut Air Base, Idaho) U.S.N.R.
 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.) Capt., A.U.S.

(*) Reported missing in action.

(†) Reported deceased in service.

(‡) Reported prisoner of war.

OFFICERS ELECTED AT ANNUAL SESSION

Dr. Ransom D. Bernard of Clarion took office as President of the Iowa State Medical Society at the afternoon session of the House of Delegates Thursday, April 19, and Dr. Robert L. Parker of Des Moines was named President-Elect after serving fifteen years as Secretary of the Society. Other officers elected include Dr. George H. Scanlon of Iowa City, First Vice President; Dr. Conreid R. Harken of Osceola, Second Vice President; Dr. John C. Parsons of Des Moines, Secretary; Dr. James A. Downing of Des Moines, Treasurer; Dr. John I. Marker of Davenport, Trustee; Dr. Robert N. Larimer of Sioux City, Councilor of the Fourth District; Dr. Roy C. Gutch of Chariton, Councilor of the Ninth District; Dr. James E. Reeder of Sioux City, Delegate to the American Medical Association; and Dr. Gerald V. Caughlan of Council Bluffs, Alternate.

NAVY DOCTORS—AND TYPES OF DUTIES TO WHICH THEY ARE ASSIGNED

"What types of duties are Naval medical officers assigned to?" . . . "What kind of assignment will I receive?" . . . "Will I be used in my specialty?" Such are typical of the questions being asked every day by doctors who are considering the U. S. Navy as their next call . . . who want to assist at this crucial hour when more and more fighting men are requiring medical and surgical attention.

Now for the first time a categorical description of the principal duties of medical officers in the U. S. Navy has been prepared. Although the Navy cannot promise a candidate his exact preference for duty, it makes every effort to place him where he can work most effectively.

The possible assignments to Naval medical officers are divided into five categories. Outlines of these duties follow:

1. With the Marine Corps: On an invasion a doctor assigned to this duty is with the front line, as a rule going in with the third or fourth wave. The duty of this officer is comparable to that of an Army combat doctor. He works in the field. On Marine duty, the Naval doctor may be assigned to field hospital in Marine divisions in which all major sur-

(Continued on page 206)

WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

President—MRS. SOREN S. WESTLY, Manly

President-Elect—MRS. ARTHUR E. MERKEL, Des Moines

Secretary—MRS. KEITH M. CHAPLER, Dexter

Treasurer—MRS. HARRY W. DAHL, Des Moines

THE DOCTOR'S WIFE*

ROCK SLEYSER, M.D.

President, American Medical Association, 1939

After an experience of some thirty-six years as the husband of a doctor's wife, I am appreciative of the fact that no single influence helps to develop and mold the doctor as does his nearest partner in the business and adventure of life. The development of character, of personality, of standards, of ideals, of humanness depend upon her influence as upon no other. And his success and influence in his community depend upon these qualities as much as upon his scientific attainments.

We are living in a muddled world—a world which is looking for leadership. The future of medicine and the future of this world depend upon the leadership which its develops. Leadership can influence only as a result of confidence, and it is to you wives of doctors I want to appeal to develop in your men those qualities which will inspire the confidence necessary that they may mold the thought of their community in matters relating to health.

To understand your doctor and his job you must go back to a time (possibly before you knew him), a time when he made the great decision to give his life to the care of the sick. No ambition for power, or fame or glory or riches prompted him in his choice of a career. Rather it was his interest in science and his love of service. It was the highest idealism of youth motivating him when he determined on the hardest, the longest and the most expensive preparatory education to take up a life work whose main reward is the satisfaction of service well done. It is this idealism, this willingness to sacrifice, this sense of values, which you as his partner must share with him and must keep alive in him.

Nothing—and I say this without the slightest mental reservation—*nothing* is as important in shaping the doctor's career as is his wife and his home. The doctor's wife must share his idealism, appreciate a standard of values held by no other group, and give to him an understanding required of few. Being a doctor's wife is both an art and a career.

First, she can never exercise the prerogatives of ownership which other wives claim, for the public feels and exercises a joint sense of ownership in him as well. His time is theirs, day or night, and

they do not hesitate to intrude. Plans are difficult to make and to fulfill, and life is full of bitter disappointments because of this, disappointments which the doctor can accept more easily than his wife. His life, his habits, his mode of living, his personality, and even his private affairs are subjects of discussion and criticism, as is true of no other with the possible exception of the clergyman. This requires an unusual restraint on her part and an exercise of emotional control, for as his partner she is the victim of all this as much as he. Instead of reacting with bitterness and resentment, she must be prepared to submerge her feelings and exercise a steadying influence on him.

There are many temptations in his professional career which must be met. There is with need at times the temptation to commercialism. With fatigue, there is the urge for relaxation and amusement at the expense of necessary reading and study that he may bring all that is new to the bedside of the sick. There is the temptation to be truant to the meetings of his medical organization for these same reasons. There is the urge to retaliate and strike back at fancied or actual wrongs at the hands of his colleagues. There is the opportunity to advance at the expense of others by unfair advantage. In all of these, and in many other circumstances, the temptation will be as great to his wife as to the doctor. She will want material rewards, more rest for him, more of his time and companionship—even more than he—and her whole inclination will be to fight fiercely in his defense. But this cannot be; hers must be the influence to keep his aim at the stars, his purpose unchanged, his ideals in no way lowered and his character outstanding and above reproach. Considering all the responsibilities he carries and the support he requires in assuming it, the job of being a doctor's wife is, as I have stated, an art and a career.

But when autumn days are here and the task must be lightened, you will be standing with him in the twilight as he passes on to younger hands the glory of a professional career above reproach, a career perhaps without material reward but a career good and clean and true to all the teachings of a great physician who came to us from Galilee. And as you stand hand and hand and look back over the years, there will be the joy and satisfaction of hearing him say—"You were my partner—it was possible only because of you."

*Address to the Woman's Auxiliary, St. Louis, May 17, 1939. From the March, 1945, issue of The Bulletin.

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HYGEIA CONTEST

We are pleased to announce that the Dallas-Guthrie and Dubuque County Auxiliaries were among the group which had twenty-five or more subscriptions to *Hygeia* and ranked in the national contest.

Frankly, the record for Iowa is somewhat humiliating in view of the fact that subscriptions to *Hygeia* should be a major project in all Auxiliaries. Do we place too much smug importance on literacy in Iowa?

Washington, Utah, and Missouri were the state winners in the contest.

DO YOU KNOW

That 1945 "marks the fiftieth year of industrial nursing in the United States"? Eva W. Hague, R. N., in the March 1945 *Bulletin* of the Iowa State Association of Registered Nurses, states:

"This field of nursing has not gained recognition as rapidly as institutional and public health nursing, probably because there has not been a sufficient number of industrial nurses to make the impact of their needs felt. War has given impetus to the employment of nurses in industry and the raising of standards for this group. . . .

"The duties of the first nurse employed were chiefly visiting ill workers in their homes, since then her services have gradually expanded until in 1945 we find the industrial nurse doing not only first aid in the plant but playing an important role in caring for the health and human interests of the employee and serving as a link between the employee and management."

Butler County

The Butler County Medical Society held its regular meeting in Allison Monday, March 19. After dinner the physicians met at the office of Dr. F. F. McKean, while Mrs. S. S. Westly of Manly, President-Elect of the State Auxiliary, met with the wives at the McKean residence and organized an Auxiliary to the Butler County Medical Society. The following officers were elected: Mrs. F. A. Rolfs of Aplington, president; Mrs. C. F. Roder of Dumont, secretary; and Mrs. F. F. McKean of Allison, treasurer. Mrs. W. E. Day of Clarksville and Mrs. J. G. Evans of New Hartford were also present.

Polk County

Dr. W. W. Bauer, Director of the Bureau of Health Education of the American Medical Association, spoke before the Polk County Medical Auxiliary at its luncheon meeting Friday, March 23, at 12:30 p. m. at Younkers Tea Room in Des Moines. The subject of his excellent address was The Nation's Health Is Good. Dr. Robert L. Parker, Secretary of the Iowa State Medical Society, introduced Dr. Bauer. Other guests included Dr. A. E. Merkel, President of the Polk County Medical Society; Mrs. J. C. Decker, President of the State Medical Auxili-

ary; Miss Gertrude Cromwell, Supervisor of Health Education in the Des Moines Public Schools; and Miss Mary L. McCord, Executive Secretary of the Iowa State Medical Society. Mrs. James W. Young, Vice President, presided in the absence of Mrs. Russell C. Doolittle, President.

Sioux Med-Dames

The Sioux Med-Dames held their annual March tea in the home of Mrs. W. E. Cody on Wednesday, March 14. Guests were wives of the doctors stationed at the Sioux City Army Air Base. Mrs. R. E. Crowder, president, presided. Correspondence was read from Dr. Prince Sawyer, thanking Sioux Med-Dames for their part in celebrating his fiftieth year in the practice of medicine. A form from the War Service Board was checked by each member for her war service contribution. A contribution of five dollars was given to the Nurses Loan Fund and also to the Red Cross. Officers elected for the coming year were Mrs. E. H. Sibley, president; Mrs. W. H. Blume, vice president; Mrs. J. D. Lutton, secretary; and Mrs. F. G. Valiquette, treasurer.

The Sioux Med-Dames are proud to have the state president and state secretary at their meetings.

Mrs. E. H. Sibley, Secretary

HOW'S YOUR COLD TODAY?

"Mary had a little cold,
But wouldn't stay at home,
And everywhere that Mary went,
The cold was sure to roam;
It wandered into Molly's eyes,
And filled them full of tears,
It jumped from there to Bobby's nose,
And thence to Jimmy's ears.
It painted Anna's throat bright red,
And swelled poor Jennie's head.
Dora had a fever,
And a cough put Jack to bed.
The moral of this little tale
Is very quickly said:
She could have saved a lot of pain
With just one day in bed!"

—Anonymous

SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 2:45 p. m.

WSUI—Thursdays at 9:00 a. m.

May 2-3	The Child Health Program	Daniel C. Barrett, M.D.
May 9-10	Arthritis	Leo J. Miltner, M.D.
May 16-17	Diabetes	Howard L. Miller, M.D.
May 23-24	Middle Ear Infections	Merrill O. Eiel, M.D.
May 30-31	The Romances of Cardiology	Daniel J. Glomset, M.D.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. WALTER L. BIERRING, Des Moines, Chairman

DR. HENRY G. LANGWORTHY, Dubuque, *Secretary* DR. CHARLES L. JONES, Gilmore City

DR. CLYDE A. HENRY, Farson

DR. LESTER C. KERN, Waverly

Medical History of Wapello County

CLYDE A. HENRY, M.D., Farson

Part IV

A COMPENDIUM OF WAPELLO COUNTY MEDICAL HISTORY FROM 1853 TO 1945

(Continued from last month)

David Crawford Brockman was born in Cedar Rapids, Iowa, September 15, 1853, and died of angina pectoris August 21, 1925, at Ottumwa, Iowa, where he had been in continuous practice since 1892.

In the spring of 1855, his parents, Walter Leak and Helen (Crawford) Brockman, moved to a farm near Shellsburg, Iowa, where young Brockman attended a country district school until the spring of 1868, when he again moved with his parents to Blainstown, Iowa. In the fall of 1868 he entered Blainstown Academy, and remained a student three terms. He taught a country school in 1869 at \$25.00 per month. He entered Cornell College in 1870 and worked for his board during the fall and winter, walking four and one-half miles to school daily. From 1871 to 1876 he taught school, worked in a nursery, and attended Cornell College. In 1876 he entered the Medical Department of the State University of Iowa, from which he was graduated in March 1878. He located in Marengo, Iowa, March 25, 1878, and continued in practice there until February 1, 1892, when he moved to Ottumwa. Dr. Brockman practiced general medicine and surgery until 1905, when he limited his practice to surgery and consultation.

While located in Marengo, he was U. S. Pension Examining Surgeon from 1884 to 1892; Chicago Rock Island and Pacific Railway Surgeon from 1879 to 1892; Adjunct to Chair of Obstetrics and Gynecology, Medical Department, State University of Iowa, from 1888 to 1892. At Ottumwa he became president of the Wapello County Medical Society in 1895; president of the Tri-State Medical Society in 1896; president of the Iowa State Medical Society in 1905; and president of

the Iowa Railway Surgeons' Association in 1906. He was also a Fellow of the American College of Surgeons; and a member of the Western Surgical Association, later.

On November 5, 1879, Dr. Brockman was united in marriage to Sarah Augusta Mallory, in Marshalltown, Iowa. To this union five children were born. Mrs. Augusta Brockman died July 19, 1908, after an illness lasting many years. On February 2, 1910, Dr. Brockman married Miss Lucy Nottingham Warden, daughter of Dr. C. C. Warden who was the first graduate physician to locate in Wapello County, as well as the first president of the Wapello County Medical Society which he helped to organize in May, 1853. We are indebted to Mrs. Brockman for valuable data used in this article, which was prepared by Dr. Brockman himself several years before his death. Imbued with the traditions of a worthy generation of pioneer physicians, Mrs. Brockman added much to the poise and dignity of her distinguished husband. She resides in Ottumwa.

Upon the occasion of his death, an appreciation of Dr. D. C. Brockman was published in the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY by a committee composed of Drs. Edward T. Edgerly, Maude Taylor, and Murdock Bannister, of the Wapello County Medical Society, from which I quote a summation of qualities that go to make a man.

"The Doctor loved flowers and books and people, particularly children. As an official in the Presbyterian Church, and in the Young Men's Christian Association, he rendered valuable public service; and, in quiet unostentatious ways, did many acts of kindness."

David S. Fairchild, in an editorial of the day, aptly noted:

"He was a skillful surgeon with a background of deep knowledge of Medicine as a whole. He was not an operator only, but a real surgeon who could measure a case from every angle."

John Francis Herrick was the fifth Wapello County physician to become president of the Iowa State Medical Society. His father and mother, Edward and Mary Herrick, came to this country from Ireland and settled on a farm near Fairfield, Iowa, where he was born February 13, 1864. After graduating from the public schools, he attended Parsons College, and taught in country schools near Libertyville, Iowa, for three years. Having decided upon a medical career, he began the study of medicine under the direction of Dr. Jefferson Williamson, of Ottumwa, and was graduated in 1891 from the Keokuk Medical College in Keokuk, Iowa. After graduating, he located in Ottumwa and continued his office association for some time with his old and distinguished preceptor, Dr. Williamson. On June 6, 1899, he was married to Miss Mary Sullivan, whose death soon occurred. He never remarried.

Dr. John F. Herrick was an inveterate student. His leisure hours were occupied, in long part, in reading scientific medicine or classical literature. His method of study was precise and exhaustive, his plan being to cover thoroughly one subject at a time.

In the early years of his practice he became secretary of the Wapello County Medical Society, continuing in office for a period of seventeen years. He was authorized by the Society to plan the annual program. So ably did he plan, and so successfully were his programs executed by the Society, that his Wapello County plan of postgraduate study was adopted by various county societies throughout the state. Briefly, here is how he managed it: He insisted that each member assigned to the program present a thoroughly prepared paper. Very few failed to comply with his assignment, and no one received more benefit from the paper than its author, who was forced to study his subject diligently in order to prepare his paper. He planned each year's study course so that some one important subject would be thoroughly covered. Here is a concrete example: During the year 1908, the Wapello County Medical Society met in regular session twenty-six times. Sixteen of the twenty-six papers read before the Society that year were devoted to the study of the appendix and appendicitis. And all papers were prepared by members of the Society.

Regardless of recent innovations in postgraduate plans, I still believe that Dr. Herrick was right:

the County Society should be the grade school for the general practitioner; and the majority of its teaching staff should be composed of its own membership.

In 1896, he was appointed Health Officer of Ottumwa and served for a term of six years. He was an active worker in the State Society, contributing many scientific papers, and was its president in 1917. He also served as a member of the Board of Trustees from 1926 to 1930. He became a Fellow of the American College of Surgeons in 1915; a member of the Radiological Society of North America at its sixth annual meeting in Chicago in 1920, and later served as Chairman of its Executive Committee. He was also a member of the American Roentgen Ray Society, and the American Radium Society.

Upon the occasion of his death, the late Dr. J. Fred Clark, of Fairfield, wrote the following tribute to the memory of his lifelong friend:

"I have known Dr. John F. Herrick from boyhood. We were raised in the same neighborhood, near Fairfield. We always have kept closely in touch with each other. When I was commissioned to form a hospital unit for service in France, I immediately turned to John F. Herrick for consultation and cooperation. He gave unstintingly of his time and efforts in helping me form the unit and in securing material and financial assistance from southeastern Iowa in equipping our organization under the Red Cross, previous to its militarization. In France, Major Herrick was the Chief of my Medical Staff. He had charge of our entire hospital of several hundred beds. He never thought of hours. He was always faithful to his tasks. He was a true soldier, a highly capable Doctor, a loyal friend."

Smith Augustus Spilman, the sixth Wapello County physician to become president of the Iowa State Medical Society, was born March 6, 1853, and died suddenly, of coronary occlusion, at his home in Ottumwa, Iowa, on April 11, 1942. His parents, John D. and Amelia (Percival) Spilman, were natives of Kentucky, from which state they both migrated to Jennings County, Indiana, before their marriage. After marriage, they engaged in farming for a time. In 1860 they moved to Decatur County, Indiana, where he served as County Auditor for eight years. He served in the 76th Indiana Infantry during the Civil War, and was a licensed minister of the Methodist Episcopal Church. In 1871 he removed his family to a farm in Wapello County, where he died August 19, 1876. His wife, a devoted member of the Methodist Church, died five years later.

Dr. S. A. Spilman attended the schools of Greensburg, Indiana. He came to Wapello Coun-

ty with his parents, and taught school in Keokuk and Wapello Counties until 1876, when, with Dr. C. G. Lewis of Ottumwa as his preceptor, he entered the Medical Department of Northwestern University, and graduated with the class of 1879. After graduation, he commenced practice in Ottumwa, continuing in the office of Dr. C. G. Lewis for three years.

On September 23, 1873, Dr. Spilman married Mary J. Kizer of Decatur County, Indiana. She died in 1876, leaving one child, a daughter, who survived her death. In 1879 he married Mary Ball, of Fairfield, Iowa, whose death occurred in 1881. On December 27, 1886, he married Alice Sellers of Oskaloosa, who now resides in Ottumwa, as does their only son, Dr. Harold A. Spilman.

In the early years of his practice, Dr. Spilman did not aspire to achieve eminence in the field of surgery. But he was a constant student and a keen observer throughout the fifty-eight years he was engaged in active practice. In 1893 he was a student in Vienna. In 1900 he took postgraduate work in New York City. By the time it became definitely known that "inflammation of the stomach and bowels" was a surgical problem—not medical—he was so well qualified to apply the proper remedy, that, when an emergency arose, with no better qualified surgeon readily available, he did not hesitate to perform the first appendectomy in Wapello County. This was the beginning of a surgical career that led him to pioneer in many fields of surgery with marked success. His last major operation, a splenectomy, was skillfully performed when he was nearly eighty years of age.

He was a Fellow of the American Medical Association, a member of the Southeastern Iowa and Des Moines Valley Medical Associations, a Fellow of the American College of Surgeons, a Surgeon for the Milwaukee, Burlington, and Wabash railroads, and an active worker in local and state societies. He took an active part in the organization of the Ottumwa Hospital, and served on the staffs of both the Ottumwa and St. Joseph's Hospitals for many years.

Dr. Spilman was always active in the civic life of his community. He was a charter member of the Kiwanis club; a member of the Chamber of Commerce; and for more than forty years he served on the official board of the First Methodist Church. He was also a prominent member of the Elk and Masonic Lodges.

Upon the occasion of his death, Dr. Walter L. Biering, writing in the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, said:

"A great noble figure in Iowa Medicine has

passed from our midst. A medical practitioner during six decades, a pioneer in Iowa surgery, former president of the Iowa State Medical Society, a cultured charming gentleman and stalwart American. Such was Dr. S. A. Spilman."

Charles Burr Taylor, the seventh Wapello County physician to become president of the Iowa State Medical Society, was born on a farm in Mahaska County, Iowa, December 27, 1867. His parents, Amos and Ruth Anna (Lipsey) Taylor, were Quakers. They came from Ohio in 1865 and settled on a farm near Indianapolis, Iowa, where they remained until late in life; when they moved to the nearby town of What Cheer. Here they died, worthy and respected citizens, at the respective ages of 87 and 89, firm believers in a friendly Christianity that worships God without a creed, a liturgy, a priesthood, or a sacrament.

In the early years of his life, Dr. Taylor attended the neighborhood schools. He was a student at Ackworth Academy from 1883 to 1885. He attended the Oskaloosa College and Academy from 1885 to 1893. He entered Butler College in 1893 and was graduated with an A.B. degree in 1895, and A.M. in 1896. That same year he began the study of medicine in the Central College of Physicians and Surgeons, in Indianapolis, Indiana, from which he received his medical degree in 1899. He returned to Iowa after graduation and opened an office for general practice in Gibson, where he remained for five years. In 1904 he moved to What Cheer and successfully engaged in the practice of medicine and surgery until July, 1917, when he was commissioned a Captain in the Medical Corps of the U. S. Army, serving first at Ft. Riley, Kansas, and then at Jefferson Barracks, Missouri, to the end of the war.

In 1919 he came to Ottumwa and opened an office, limiting his practice to the Ear, Nose and Throat. Here, as in the field of general medicine and surgery, he met with outstanding success; and his host of friends, both lay and professional, were genuinely sympathetic when, in 1935, a heart ailment forced him to retire.

From the earliest years of his practice, Dr. Taylor was a firm believer in, and an active supporter of organized medicine. In addition to serving as president of the Keokuk County Medical Society, he represented that County, either as delegate or alternate in the annual meeting of the State Society, most of the time from 1902 to 1917. He also served as delegate from Wapello County several years prior to his election as president of the State Society for the year 1934. He was Chairman of the Section on Medicine in 1913, and served at another time as Chairman of the Eye, Ear, Nose and Throat Section. In 1921 he

was chosen to deliver the Oration on Medicine. At Boston, in 1914, he was made a Fellow of the American College of Surgeons, and a Fellow of the American Academy of Ophthalmology, Otolaryngology and Rhinology in 1924 at Washington, D. C.

On June 26, 1895, Dr. Taylor was married to Miss Mabel Atwater at Oskaloosa, Iowa. She was born October 20, 1869, in Hiram, Ohio. She graduated from Eureka College, Eureka, Illinois, and took her M.A. work at Butler College, Indianapolis, Indiana. They have three sons: Lawrence Atwater Taylor, a practicing physician in Ottumwa and secretary of the Wapello County Medical Society since 1941; Edgar Merle Taylor, a practicing physician in Portland, Oregon; and Richard Lloyd Taylor of Ontario, California.

Dr. Taylor has been a student all his life. During the years of his practice he took time to attend clinics in Boston, Philadelphia, Baltimore, Cleveland, Rochester, and St. Louis, as well as to do postgraduate work in New York City and at the Postgraduate Medical School in Chicago.

This is the itinerary of Dr. Charles Burr Taylor from the cradle to a Nice Old Gentleman, whose health (may it continue to improve!) now permits him to do a *little* hoeing in his wife's flower garden, and a *lot* of sitting on the Ration Board in his home town, Upland, California.

(To be continued)

NAVY DOCTORS

(Continued from page 200)

gery is initially done on the wounded. The doctors in these hospitals have an opportunity to do more real surgical work than those stationed in major rear base hospitals. They are called upon to use great imagination and initiative.

2. Aboard a Destroyer: There are 149 to 325 officers and men assigned to duty on a destroyer depending upon the size of the ship. Usually one medical officer is assigned to a destroyer and he has charge of all medical material and stores aboard, and the treatment and care of the sick and wounded. He also functions as a sanitation and health officer by advising the Commanding Officer in matters pertaining to the proper care of food and water and the general hygienic condition of the ship itself.

3. Aboard Large Ships (Battleships, Cruisers, Carriers): The normal complement of a battleship is 1,750 to 2,600 officers and men; a cruiser, depending on whether it is light or heavy, from 700 to 1,550 officers and men; an aircraft carrier from 2,800 to 3,500 officers and men. Three to five medical officers are assigned to the larger ships. The senior medical officer is responsible to the Commanding Officer, in the same way as the destroyer medical officer described above, for the medical supplies and equipment and in an advisory capacity on matters of hygiene. The care of the sick and wounded is a greater problem, of course, but is facilitated by the larger sick bay space and elaborate equipment such as operating tables and x-ray machines, pharmacy laboratory, etc. These large air condi-

tioned spaces which make up the sick bay of the modern super dreadnaughts are small hospitals and function as such in every way. All types of surgical cases and illness are treated here. The medical officers of these large ships also act in a consultant capacity to smaller vessels. In isolated ports, destroyer sailors come aboard for blood tests, x-ray examinations, treatment of fractures, and for surgical operations.

4. On an Advance or Rear Base, on a Hospital Ship, or in a Hospital in the U. S.: A doctor functions in any one of these assignments in the same way as he would when practicing general medicine and surgery or as a specialist in a large city. He has the finest equipment available to him. He works and consults with associates in the same way as he does in civilian life. Specialists are usually assigned to shore and hospital ships in order to take advantage of their skills. For example: At the Naval Medical Center, Bethesda, Maryland, there are specialists in orthopedics, neurosurgery, tropical diseases, chest surgery, internal medicine—indeed all the professional specialties.

5. Assignment to Medical Research: Laboratory research under the cognizance of the Bureau of Medicine and Surgery follows in general the same line as that of important research centers in civilian medicine but is channeled according to military interests and with military application in view. Naval Research Laboratories are constantly working on ways to improve service to the Fleet, and to the Advance and Rear Base Hospitals.

The Navy's need for doctors in all of these types of duty is still very acute and every eligible doctor is needed now. Doctors previously declared physically disqualified are being reconsidered in view of a modification of physical requirements.

Interested doctors may contact the Office of Naval Officer Procurement, 1009 Baltimore Avenue, Kansas City, Missouri. Travel Boards are maintained in the Old Federal Building, Des Moines, Iowa, and Baird Building, 1704 Douglas, Omaha, Nebraska.

Doctors up to sixty years of age are now being considered by the Navy. Complete information may be obtained from the nearest Office of Naval Officer Procurement. The Doctor's tasks in the Navy are clear and concise. The need for men to fill these assignments is critical. Help . . . NOW!

PREVALENCE OF DISEASE

Disease	Mar. '45	Feb. '45	Mar. '44	Most Cases Reported From
Diphtheria	20	8	23	Chickasaw, Cerro Gordo, Union
Scarlet Fever	367	271	881	Polk, Pottawattamie, Des Moines
Typhoid Fever	0	*14	4	.....
Smallpox	1	1	14	Pocahontas
Measles	216	94	1127	Woodbury, Pottawattamie, Sac.
Whooping Cough ..	11	17	50	Des Moines, Floyd, Johnson
Brucellosis	33	**99	24	Linn, Dubuque
Chickenpox	462	420	405	Dubuque, Des Moines, Story
German Measles ...	5	5	34	Dubuque
Influenza	0	0	67	.....
Malaria	3	3	3	Clayton, Guthrie, Page
Meningococcus				
Meningitis	10	8	9	Scott
Mumps	393	311	231	Dubuque, Black Hawk, Johnson
Pneumonia	25	21	91	Polk, Black Hawk, Dickinson
Poliomyelitis	0	2	0	.....
Tuberculosis	60	91	78	For the State
Gonorrhea	262	217	155	For the State
Syphilis	94	144	211	For the State

*12 of the 14 Cases Are Delayed Reports

**99 Delayed Reports

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

- LIPPINCOTT'S QUICK REFERENCE BOOK FOR MEDICINE AND SURGERY, a Clinical, Diagnostic, and Therapeutic Digest of General Medicine, Surgery, and the Specialties, Compiled Systematically from Modern Literature—By George E. Rehberger, M.D. Twelfth edition. J. B. Lippincott Company, Philadelphia, 1944. Price, \$15.00.
- ARTERIAL HYPERTENSION, Its Diagnosis and Treatment—By Irvine H. Page, M.D., and Arthur Curtis Corcoran, M.D., Research Division of the Cleveland Clinic Foundation, Cleveland, formerly Lilly Laboratory for Clinical Research, Indianapolis City Hospital, Indianapolis. The Year Book Publishers, Inc., Chicago, 1945. Price, \$3.75.
- MILITARY MEDICAL MANUALS, MANUAL OF CLINICAL MYCOLOGY—Prepared under the Auspices of the Division of Medical Sciences of the National Research Council. W. B. Saunders Company, Philadelphia, 1944. Price, \$3.50.
- INTERNAL MEDICINE, Its Theory and Practice—Edited by John H. Musser, M.D., Professor of Medicine in The Tulane University of Louisiana School of Medicine; Senior Visiting Physician to the Charity Hospital, New Orleans, Louisiana, Fourth edition, thoroughly revised. Lea & Febiger, Philadelphia, 1945. Price, \$10.00.
- ATLAS OF THE BLOOD IN CHILDREN—By Kenneth D. Blackfan, M.D., Late Thomas Morgan Rotch Professor of Pediatrics, Harvard Medical School, Late Physician-in-Chief, Infants' and Children's Hospitals, Boston; LOUIS K. DIAMOND, M.D., Assistant Professor of Pediatrics, Harvard Medical School, Visiting Physician and Hematologist, Infants' and Children's Hospitals, Boston. With illustrations by C. Merrill Leister, M.D., Associate Pediatrician, St. Luke's Hospital, Bethlehem and Allentown General Hospital, Allentown, Pennsylvania. The Commonwealth Fund, New York, 1944. Price, \$12.00.
- THE 1944 YEAR BOOK OF GENERAL SURGERY—Edited by Everts A. Graham, M.D., Professor of Surgery, Washington University School of Medicine; Surgeon-in-Chief of the Barnes Hospital and of the Children's Hospital, St. Louis. The Year Book Publishers, Inc., Chicago, 1944. Price, \$3.00.
- MEDICAL USES OF SOAP—Edited by Morris Fishbein, M.D. A symposium by Rudolf L. Baer, M.D., Irvin H. Blank, Ph.D., Theodore Cornbleet, M.D., Morris Fishbein, M.D., G. Thomas Halberstadt, B.S., Ch.E., Lester Hollander, M.D., Daniel J. Kooyman, Ph.D., C. Guy Lane, M.D., Carey McCord, M.D., Marion B. Sulzberger, M.D. J. B. Lippincott Company, Philadelphia, 1945. Price, \$3.00.
- APPROVED LABORATORY TECHNIC—By John A. Kolmer, M.D., Professor of Medicine in the School of Medicine and the School of Dentistry, Temple University, Director of the Research Institute of Cutaneous Medicine; and FRED BOERNER, V.M.D., Associate Professor of Clinical Bacteriology, Graduate School of Medicine, and Assistant Professor of Bacteriology, School of Medicine, University of Pennsylvania, Bacteriologist, Graduate Hospital, Philadelphia. Fourth edition. D. Appleton-Century Company, Inc., New York, 1945. Price, \$10.00.
- OPERATIONS OF GENERAL SURGERY—By Thomas G. Orr, M.D., Professor of Surgery, University of Kansas School of Medicine, Kansas City, Kansas. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

BOOK REVIEWS

SURGERY OF THE HAND

By Sterling Bunnell, M.D., Honorary Member of the American Academy of Orthopedic Surgeons; Member of American Association of Plastic Surgeons and of American Society of Plastic and Reconstructive Surgery. J. B. Lippincott Company, Philadelphia, 1944. Price, \$12.00.

In this volume the author has made an outstanding contribution to surgery of the hand. To the reviewer it represents the ideal type of scientific publication. Its originality, conciseness, and thoroughness, as well as its sincerity, are evident in every paragraph.

The book is divided into four parts. The first part presents the phylogeny, comparative anatomy, and description of the normal hand. The second part is devoted to reconditioning of the hand, the third part deals with injuries and infections, and the fourth part with muscle conditions, vasomotor disturbances, congenital deformities, tumors, and various other conditions. If there is an outstanding section of the book, it is that part which concerns reconstruction of the hand. In this section the author has taken up very concisely all of the various tissues of the hand, beginning with the skin and including all underlying structures. The clearness of this discussion is such that even those who are not very familiar with the hand can learn a great deal from it.

This volume marks a great advance in the surgical care of the hand and should be considered indispensable to anyone who attempts to restore function to the disabled hand.

L. M. O.

VENTURES IN SCIENCE OF A COUNTRY SURGEON

By Arthur E. Hertzler, M.D., Halstead, Kansas. Foreword by Raymond B. Allen, M.D., Dean of University of Illinois College of Medicine.

The author is a nationally known surgeon, Iowa born, who has many friends among the doctors of this state. In the preface of his book he states that "even after fifty years in the practice of medicine I do not admit that I face the setting sun. However, it has descended low enough so that it shines in my eyes, a warning that in the course of events some day it will set; time to take an inventory."

This excellent book is a summary of Doctor Hertzler's wide experiences and observations in surgery. The book was written primarily for his seven grandsons and granddaughters headed for life in his profession. To them he has put on record his experiences during a life of unremitting toil which he has found worth while.

The book is divided into nineteen interesting chapters covering a large field of surgical discussions and subjects related to the making of a real surgeon. The chapter on goiter is of special interest, since Dr. Hertzler has lived through the entire development of goiter surgery. As a postgraduate student under Professor v. Bergmann in Berlin some fifty years ago, the teaching at his clinic was that in exophthalmic or toxic goiter when associated with heart failure, the decompensation was due to the mechanical pressure of the goiter on the large vessels. The goiter itself was innocent except that it sat on the

veins leading to the heart. Dr. Hertzler's study of goiter led him to consider total thyroidectomy the ideal procedure. This operation he has been doing routinely for more than ten years.

Dr. Hertzler began his research work in what he called his ten by twelve foot laboratory of experimental surgery, a small frame building near his kitchen door. He has continued his research through the years. *Ventures in Science of a Country Surgeon* is worthy of careful reading from many angles.

O. J. F.

THE ART OF RESUSCITATION

By Paluel J. Flagg, M.D., Chairman, Committee on Asphyxia, American Medical Association; President and Founder of the Society for the Prevention of Asphyxial Death, Inc. Reinhold Publishing Corporation, New York, 1944. Price, \$5.00.

Dr. Flagg has written a book which should not only be of great interest but also a source of much help to the medical profession. The matter of asphyxia and asphyxial death has been, until recently, a little understood and poorly treated medical catastrophe. It comes as something of a shock to most of us to learn that the annual death rate in the United States, from this cause, is about 50,000—a figure in excess of auto accidents. This seems to be a totally unnecessary loss of human lives.

In 1933, Dr. Flagg and other interested medical men organized the Society for the Prevention of Asphyxial Deaths. The Society was called S. P. A. D., the object of which, naturally, has been the dissemination of all possible information on the cause of asphyxia, the recognition of the symptoms, and the outlining of proper methods of treatment.

The work originated with the treatment of asphyxia in newborn babies, which was not at all on a sound basis some years ago. Later, deaths from anesthesia were studied and these were found to be the result of inadequate treatment, and in some instances no treatment at all. Then came the deaths from suffocation because of obstruction or blocking of the respiratory passages.

A great deal of work by various investigators has brought about a rational treatment based on physiologic studies. Henderson contributed greatly by stressing the essentiality of carbon dioxide in the treatment of anoxia. The chapter on Methods of Resuscitation details clearly all the means employed from the Manual to the Drinker Respirator. There are several chapters on asphyxia of submersion, high altitudes, electrocution, and practically every other type of asphyxia. The book is well illustrated with many photographs of apparatus and of human bodies showing the characteristic appearance after death brought about by the various types of asphyxia. Several typographical errors were observed.

The author is sincere in his desire that everything should be done to bring to the attention of the profession the importance of this subject, to the end that the unnecessary waste of life be greatly curtailed or eliminated. It is the reviewer's opinion that the book is exceedingly valuable. F. R. H.

PATHOLOGY OF LABOR, THE PUERPERIUM AND THE NEWBORN

By Charles O. McCormick, M.D., Clinical Professor of Obstetrics, Indiana University School of Medicine; Consulting Obstetrician to William H. Colman Hospital for Women, Indianapolis City Hospital, and Sunny Side Sanitarium. The C. V. Mosby Company, St. Louis, 1944. Price, \$7.50.

This volume has been kept on my desk for the past two weeks and during that time I have used it as a reference book, and the more I use it the more I can recommend it.

The author in his preface gives an excellent review of his own book. Therefore I quote the following:

"This volume is an outgrowth of a series of the author's lectures prepared for the senior medical students at Indiana University. Primarily, it is an attempt to set forth only the essentials of present-day obstetric thought, purposely avoiding confusing textbook material.

"Extra consideration has been given pelvimetry, breech extraction, placenta previa, postpartum hemorrhage, use of forceps, version and cesarean section technics, puerperal infection, breast pathology, and asphyxia neonatorum. The ensemble of tubal sterilization operations and the detailed description of therapeutic and surgical procedures should elicit special interest.

"Reference has been given to such newer adjuncts as puerperal sterilization, sulfonamides, penicillin, stilbestrol, vitamin K, erythroblastosis, and improved analgesia.

"Since visual instruction is more informing and enduring than that from descriptive text, a goodly number of drawings and photographs have been employed.

"The concise and direct style of presentation and the comprehensive scope covering the minor and major complications of labor, the puerperium, and the newborn, render the book suitable to general practice.

"During the present streamlining period, when curricula and courses of instructions are perforce curtailed, the symposium type of text becomes a near necessity. The student who masters the principles herein delineated will some day find himself happily in possession of fundamentals that will greatly assist him in the mission of saving life."

It has been a pleasure to read and review this book. A. M. B.

SOCIETY PROCEEDINGS

Black Hawk County

The regular monthly meeting of the Black Hawk County Medical Society was held in Waterloo at Black's Tea Room, Tuesday, April 17, at 6:30 p. m. The scientific program consisted of an address by Leon H. Flancher, M.D., of the State Department of Health, entitled The Control of Tuberculosis, and also a movie on Adrenal Cortex.

H. A. Bender, M.D., President

Dallas-Guthrie Society

The regular meeting of the Dallas-Guthrie Medical Society and Woman's Auxiliary was held in Pannora at the Presbyterian Church Hall Thursday, April 19, at 12:30 p. m. Guest speakers of the afternoon were Christian B. Luginbuhl, M.D., of Des Moines, who spoke on Familial Hemolytic Icterus, and Carl F. Jordan, M.D., of the State Department of Health, who spoke on Consideration of Etiologic Factors in Diarrhea and Enteritis.

S. J. Brown, M.D., Secretary

Humboldt County

Members of the Humboldt County Medical Society met Friday evening, March 16, at Renwick in the offices of Dr. Lee R. Turner. Dr. H. R. Norris, an Eagle Grove dentist, was the guest speaker and discussed The Care of Children's Teeth. Following the meeting, the doctors enjoyed a lunch at the Coffee Shop.

Johnson County

The Johnson County Medical Society held its regular monthly meeting in Iowa City Wednesday, April 4, at 6:00 p. m. at Hotel Jefferson. The scientific program consisted of three very interesting case reports by Benjamin F. Wolverton, M.D., Cedar Rapids, on Endothelioma of the Pleura; Dissecting Aneurysm; and Cancer of the Jejunum. Discussion was led by Horace M. Korn, M.D., of the Department of Medicine, and John W. Dulin, M.D., of the Department of Surgery at the University Hospitals.

R. H. Flocks, M.D., Secretary

Palo Alto County

The Palo Alto County Medical Society held a meeting in Emmetsburg at the McNutt Tea Room Monday, April 2, at 7:00 p. m. Following dinner, the group went to the doctors' lounge at the hospital where the regular business meeting was held with Dr. F. X. Cretzmeyer, president of the Society, presiding. Preliminary plans for the addition to the hospital were discussed and two films from the Mayo Clinic in Rochester were presented.

Polk County

The regular meeting of the Polk County Medical Society was held at the Des Moines Club in Des Moines Wednesday evening, April 18, with dinner at six-thirty o'clock. The guest speaker of the evening was Horace M. Korn, M.D., Professor of Medicine at the State University of Iowa College of Medicine, who discussed Treatment of Coronary Occlusion.

Scott County

Members of the Scott County Medical Society met at the Lend-A-Hand Club in Davenport Tuesday evening, April 3, at six o'clock. Captain Lewis J. Dimsdale, M.C., head of the Pulmonary-Allergy Section at Schick Hospital in Clinton and former Sioux City physician, addressed the group on Differential Diagnosis of Pulmonary Tuberculosis.

L. J. Miltner, M.D., Secretary

Winneshiek County

Following the death of Dr. James J. Daly of Decorah, the Winneshiek County Medical Society passed the following resolution of respect:

"Be It Resolved, that we deeply regret the passing on February 20, 1945, of Dr. James J. Daly, pioneer in medicine, philanthropy, and community spirit.

"Be It Also Resolved, that we feel greatly the loss to our Society and the entire profession, his friendliness, his meekness of manner, his carefully weighed advice, his integrity, his ethics, his ability, and his spirit of willingness to help with all activities in the field of organized medicine.

"Be It Further Resolved, that we are deeply mindful of the four years of uncompensated service patriotically rendered his country in the administration of the Selective Service System.

"Be It Finally Resolved, that these resolutions become a part of the permanent record of the Winneshiek County Medical Society and that a copy be sent to his family and to the Iowa State Medical Journal."

H. H. Ennis, M.D., Secretary

Woodbury County

A meeting of the Woodbury County Medical Society was held Monday, March 26, in the Corn Room of the Martin Hotel in Sioux City. Following dinner the group was addressed by William D. Paul, M.D., Assistant Professor of Medicine at the State University of Iowa College of Medicine, on Treatment of Arthritis.

On Thursday, April 19, the Woodbury County Medical Society again held a meeting. Dinner was

served at 6:30 p. m. in the Ballroom of the Martin Hotel, following which H. Close, Hesselstine, M.D., Professor of Obstetrics and Gynecology at the University of Chicago School of Medicine, spoke on Penicillin and Other Therapy in Obstetrics and Gynecology.

F. D. McCarthy, M.D., Secretary

PERSONAL MENTION

Dr. G. Howard Dolmage has resumed his practice in Buffalo Center after spending more than two years in the Army. He received a medical discharge on January 29 and at present is associated with his father in the Dolmage Hospital in Buffalo Center.

Dr. Wayland K. Hicks has resumed his practice in Sioux City after two and a half years of active duty in the Army. Dr. Hicks, who served in the Army as a Major, spent most of this time at Baxter General Hospital in Spokane, where he was chief urology and penicillin officer.

Lt. Col. Elmer M. Smith, M.C., formerly of State Center, has received the Legion of Merit for "exceptionally meritorious conduct in the performance of outstanding services in Italy from 1 April to 15 September, 1944. Confronted with the responsibility of malaria control for the Headquarters and seven groups of the 306th Fighter Wing, Lt. Col. Smith, as Wing Surgeon, accomplished outstanding work in combating malaria. The area occupied by the flying fields of the Wing were considered among the worst malaria districts in Europe, where ninety-nine per cent of the local Italian population had had malaria at one time or another. Lt. Col. Smith immediately organized a survey of the district and visited the swamps to investigate the possibility of draining them. By his hard and thorough work, tools, screening, extra repellent and freon bombs were immediately secured at a time when they were vitally needed. In order to oil and clean the scores of swamps and streams in the area before the summer months, he adopted the use of airplanes and chemical warfare equipment for spraying large areas and the use of special plows for the digging of swamp drainage ditches. His capable organizing ability in making malaria surveys, in gathering tools and labor to drain the marshes, and in instituting and advertising malaria discipline among troops, assured the malaria control projects of success, thereby reflecting great credit upon himself and the Medical Corps of the Army of the United States."

Captain Donald G. Mackie, M.C., formerly of Charles City, has been awarded the Soldiers' Medal for outstanding heroism displayed at a base of the Twentieth Bomber Command in India when a B-29 superfortress, loaded with bombs, crashed on Christmas Eve. The citation reads: "Immediately following the crash, Captain Mackie rushed to the scene, and unhesitatingly faced the danger of exploding ammunition, incendiary bombs and oxygen tanks to exert his every effort in finding and rescuing the

bodies of the dead and injured crew members from the blazing wreckage. This deed was performed at extreme risk of life, since, in addition to the other attendant dangers, many 500 pound demolition bombs on the verge of explosion from the excessive heat were in the area. The actions of Captain Mackie were instrumental in saving the lives of several crew members and were a source of courage to other personnel comprising the rescue party. Such disregard for his personal safety in the execution of an act of courage reflects the highest credit on Captain Mackie and the Army Air Forces."

Major Elmo E. Gamet, M.C., formerly of Lamoni, is a member of the 56th Medical Battalion which was recently awarded the Meritorious Service Unit Plaque by Colonel Myron P. Rudolph, Surgeon of the Seventh Army. The citation stated: "For superior performance of duty in the accomplishment of exceptionally difficult tasks for the period 15 August 1944 to 30 November 1944, in France. Accompanying the 36th Infantry Division during the amphibious stages of operations in Southern France and later acting as evacuation agency for VI Corps troops, personnel of the 56th Medical Battalion and attached companies performed their normal and additional duties in a superior manner, directing their utmost efforts toward the comfort of patients being evacuated. The extreme devotion to duty shown by each man of this unit has resulted in saving the lives of a large number of wounded personnel."

Lt. Robert M. Collins, M.C., formerly of Council Bluffs, has been awarded the Navy and Marine Medal for "distinguishing himself by meritorious achievement and service in connection with operations in the Southwest Pacific as a member of the surgical unit of the 7th Amphibious Force during the period of April 1944 to July 1944."

DEATH NOTICES

Downing, William Lincoln, of Moulton, aged eighty-three, died April 16 following a stroke. He was graduated in 1886 from Rush Medical College, and at the time of his death was a life member of the Appanoose County and Iowa State Medical Societies.

Merrick, John Henry, of Glenwood, aged seventy-two, died April 15. He was graduated in 1895 from McGill University Faculty of Medicine in Montreal, Quebec, Canada, and at the time of his death was a member of the Mills County and Iowa State Medical Societies.

Stafford, Richard Henry, of Sumner, aged eighty-five, died April 8 following a three weeks' illness of heart disease and complications. He was graduated in 1890 from Rush Medical College, and at the time of his death was a life member of the Bremer County and Iowa State Medical Societies.

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No. 6

THERAPEUTIC AGENTS IN THE TREATMENT OF GLAUCOMA

WILLIAM N. HAHN, M.D.
Omaha, Nebraska

When considering the problem of glaucoma therapy, one cannot help being impressed by the multitudinous measures which have been advocated for the relief of intra-ocular hypertension and by the ingenuity of their application. Clinical observations, following the introduction of the ophthalmoscope, led von Graefe in 1854 and Weber in 1855 to establish the significance of glaucomatous cupping of the disk and, with the aid of Donders, to subdivide the disease into different categories a short time later.

An enormous amount of conjecture as to the etiology followed and the end cannot yet be said to be in sight. Indeed the investigations of Knies and Weber in 1876 and Priestly Smith in 1879, which focused attention upon the frequency of chamber angle obstruction, form the foundation for a great deal of our present-day treatment. The knowledge that such a limited viewpoint is inadequate must provide the stimulus for future research.

For the purposes of discussion, the term "primary glaucoma" will denote glaucoma in which the mechanism of the raised pressure is at present unknown. Until 1857, a diagnosis of such a condition invariably meant blindness for the patient. At this time, von Graefe observed the recession of a staphyloma following the removal of a piece of iris and subsequently applied the operation to acute glaucoma. In 1903 Herbert of Bombay, India, introduced the filtering procedure through iris inclusion and pioneered the way for the iridencleisis of Holth in Oslo, Norway, in 1907, the cyclodialysis of Heine in Breslau, in 1905, the sclerectomy of La Grance in 1905, and the corneal scleral trephining of Elliot in 1909.

From a medicinal point of view, with which we

are chiefly concerned in this discussion, the recognition of miotics in the treatment of glaucoma is credited to Laqueur of Strassburg in 1876. The subsequent remedial measures have been most numerous and not a few bizarre, as must always be the case when the causes of a disease are so complex and obscure. In order to describe even briefly the medical measures for treatment at our disposal, it is necessary to include a little of the background and pharmacology of the agents employed. We may consider first that group of drugs which are applied or instilled in the conjunctival sac. When the term miotic is used, we customarily visualize the action as being effective by reason of contraction of the sphincter, thus drawing the root of the iris away from the chamber angle and increasing the drainage possibilities. This theory, as has been mentioned, grew primarily from the observation of Knies and Weber and seems based on fact to a considerable extent. In addition, various other mechanical interpretations have been forthcoming from time to time.

1. Traction upon the scleral spur, thus opening out the tissues of the chamber angle.

2. The long posterior ciliary arteries are constricted by the sphincter action of the ciliary muscle fibers and at the same time, traction is exerted upon the choroid, opening up the choroidal veins.

3. The absorptive area of the iris surface is increased.

In any event, it seems probable that the tension lowering effect of the miotics cannot be attributed exclusively to miosis. For example, reduction in intra-ocular pressure has been observed following the use of eserine in cases which have already been shown gonioscopically to have an open chamber angle. The same reduction to a lesser degree sometimes occurred when the chamber angle was seemingly completely occluded by the presence of anterior peripheral synechiae, and even has been noted in cases of aniridia. Since both eserine and pilocarpine clinically and experimentally possess a vasodilating action, it has been suggested that

the dilatation of the capillary bed, which results from their use, aids in the removal of accumulated fluids and in the glaucomatous eye improves the existing condition of stasis. Before taking up the miotics specifically it might be interesting to describe their *modus operandi* upon the parasympathetic nerves. In brief, these nerves do not act upon the muscle fibers themselves but when stimulated, cause the liberation of acetyl choline, which in turn stimulates the muscle fibers directly. The resulting contraction is terminated normally within physiologic limits by a ferment called choline esterase which destroys the acetyl choline. Consequently we see that in using a miotic, our objective can be attained in different physiologic ways:

1. By stimulating the muscle fibers directly.
2. By inhibiting the destroying action which choline esterase has upon acetyl choline.
3. By increasing the supply of acetyl choline itself.

Pilocarpine introduced first by Weber in 1877 is the most widely used miotic and is the drug usually employed at the onset of chronic, simple or noncongestive glaucoma. The effect of one instillation lasts about six hours, which interval may be prolonged by using vaseline as a vehicle. It is usually given in the form of pilocarpine nitrate 0.5, 1 or 2 per cent solution and acts directly upon the muscle fibers, stimulating them to contraction which, as will be noted, is somewhat different than the mechanism of a number of the other miotics. Infrequently, and then usually only after a long period of use, an allergic conjunctivitis may result. In principle, pilocarpine is used in the weakest solution and given with the least frequency which is found to keep the disease in check. Preferably the ointment form is used at night.

Eserine or physostigmine, as has been mentioned, enjoys the distinction of being the original miotic and was introduced by Laqueur in 1876. If intended for repeated instillation over a period of time, the use of a 0.2 per cent solution is not as discomforting as the 0.5 per cent or 1 per cent solution used by many. In acute congestive glaucoma, 1 or 2 per cent solution is instilled every minute for four or five times. This procedure may be repeated in an hour and again after two or three hours if the pupil is still enlarged. It is a more powerful and longer lasting drug than pilocarpine, a single dose being effective for approximately twelve hours in the normal eye. The action differs from that of pilocarpine since instead of stimulating the muscle fibers directly, as does the latter, eserine inhibits the destruction of acetyl choline thereby rendering the musculature of the iris and ciliary body hyperexcitable and subject to spasm; hence, the headache and discomfort which some-

times follow its employment. Prolonged use may lead to the formation of posterior synechiae or more frequently to a follicular conjunctivitis. Consequently, eserine is essentially a drug for emergency or temporary application.

Histamine, which is a crystalline base occurring in ergot or manufactured synthetically, is a very powerful miotic and vasodilator, the miosis being produced through direct stimulation of the sphincter fibers. Tried first by Dieter in 1925 as a subconjunctival injection, it was given much publicity by Hamburger in 1926 who employed a related synthetic substance and called it "amino-glauco-san." This was used as one drop of a 2, 7 or 10 per cent solution, the instillation being preceded by holocaine. There were as in other of the "glauco-sans," which we shall mention later, certain undesirable accompanying features. Thus Elder and Law in 1929 noted "great hyperemia, sometimes chemosis and invariable severe pain" after its use. Such reactions, in addition to the uncertain and, short hypotensive effect, led these authors to conclude that "amino-glauco-san" was not indicated in chronic glaucoma. They did, however, find it a useful adjunct to eserine in certain acute cases.

Prostigmine bromide (dimethyl carbamic ester of meta hydroxy-phenyl-trimethyl ammonium bromide) was first synthesized by Aeschlimann and Reinert in 1931. It is a parasympathetic drug similar to eserine in its inhibiting effect upon choline esterase, thereby freeing and prolonging the miotic action of acetyl choline after instillation into the conjunctival sac. Demonstrated experimentally by Rosse in 1935, studied pharmacologically by Myerson and Thau in 1937 and reported clinically by S. T. Clarke in 1939, prostigmine has been used alone usually as a 3 to 5 per cent solution or in combination with mecholyl, both in acute and chronic glaucoma. It has proved to be a valuable addition to glaucoma therapy, particularly in the chronic noncongestive variety of cases.

Mecholyl is a choline derivative (acetyl beta methyl choline chloride). It supplements the contractile action on the sphincter pupillae and ciliary body of the acetyl choline normally formed on stimulation of the parasympathetic nerves. In addition to the miosis, there is produced an immediate active hyperemia of the ocular blood vessels. It was employed first as drops of a 5 per cent solution in 1931 (Villaret, Gallois and others) and by Clarke in 1939 who used it alone or as a synergist in combination with prostigmine. Clarke's routine in acute congestive glaucoma was as follows:

1. One-fourth grain morphine sulfate subcutaneously.

2. Mecholyl 20 per cent solution and prostigmine 5 per cent solution. One drop every ten minutes for seven doses.

If the tension remains high after one and one-half hours, inject retrobulbarly 0.025 gram mecholyl in 1 cubic centimeter of 2 per cent novocaine.

3. Continue the drops for another five doses. Should general symptoms of sweating, salivation, fall in blood pressure, nausea, hot skin, slight dyspnea or desire to urinate appear, they may be immediately abolished by the injection of 1/100 grain atropine which should always be at hand. The general effect, if any, comes on within two minutes and passes off in twenty. He warns against the use of mecholyl in allergic or asthmatic patients. In chronic glaucoma, prostigmine drops 3 per cent with mecholyl 10 per cent are recommended as being less unpleasant than eserine.

While on the subject of the choline derivatives, we may review carbaminoylcholine chloride or "doryl".

Vellaghen in 1935 observed that a 0.75 solution producing a miosis equal or superior to a 2 per cent solution of pilocarpine. De Sanctis in 1937 reported six cases of different types of glaucoma in which doryl therapy was given. Of these, only in three cases of the chronic simple variety was the tension reduced. Clarke compared the relationship existing between acetyl choline, mecholyl, and doryl and showed the mechanism of all three to be similar; that is, the direct stimulation of smooth muscles receiving parasympathetic innervation together with vasodilatation.

Acetyl choline is destroyed quickly by the choline esterase present in all tissues while mecholyl is more stable and doryl apparently is affected very little at all. In a 0.75 per cent solution doryl was found to vary in effectiveness but in general to be better than a 2 per cent and equal to a 4 per cent solution of pilocarpine. Clarke found it to be valuable as a form of "rest therapy" and a good substitute for other miotics which have caused a development of sensitivity accompanied by dermatitis and conjunctivitis. Since gentle massage was known to increase considerably the efficiency of doryl, O'Brien and Swan in 1942 combined doryl with zephiran which acted as surface tension reducing agent and thereby increased the corneal permeability to the drug. These authors used a mixture of 1.5 per cent solution of carbaminoylcholine chloride and 0.03 per cent solution zephiran which was reported to be superior to pilocarpine in many patients with advanced glaucoma simplex as well as in early cases. The solution must be administered so that it covers the cornea and the lids should be kept closed for at least several minutes.

Massage of the cornea through the lids increases absorption. Recently (1943) Swan advocated carbaminoylcholine chloride 1.5 per cent in pure petrolatum as being more effective and economical than other methods of administering this drug. Neither systemic reaction nor local sensitivity was observed.

Furmethide of furfural trimethyl ammonium iodide is a relatively new parasympathetic drug similar in action to mecholyl without, however, any synergistic effect upon prostigmine. Myerson and Thau in October 1940 described the results in man following the conjunctival instillation of preferably a 10 per cent solution. They noted a drop in tension in a group of twenty normal patients of from 3 to 7 millimeters (Schiotz) in fifteen to thirty minutes. The miosis and hypertension lasted from twelve to twenty-four hours or longer. Further trial in glaucoma patients is recommended. Adrenalin and like substances produce their effect upon the dilator iridis probably by activating the pre-sympathin E already present to produce sympathin E which acts directly upon the smooth muscle fibers themselves. In addition, some inhibition of the opposing sphincter muscle takes place. The rationale of adrenalin upon the ocular blood vessels has been the object of considerable research but the generally accepted interpretation at present seems to be as follows: When instilled in sufficient strength or injected subconjunctivally in the normal eye, in addition to the mydriasis there is a primary reaction consisting of a drop in tension caused by vasoconstriction followed by a slight rise due to increased general blood pressure. The secondary reaction occurs in approximately one hour and is marked by an active capillary dilatation followed by a slight rise in intra-ocular pressure. In cases of chronic simple glaucoma without congestion, the same initial phase occurs but the secondary stage of active hyperemia is marked by a fall in tension supposedly due to the improvement of the condition of stasis with its attending edema. However, if the vessels are already maximally dilated and atonic as in acute congestive glaucoma, the initial vasoconstriction does not occur. Indeed, the vessels may enter into a refractory state and even dilate further. This would, in combination with the mydriasis, tend to increase the already hazardous condition of the eye.

Although used considerably prior to his time, adrenalin and its derivatives became widely known in glaucoma therapy chiefly through Hamburger in 1923 and his numerous later publications. It occurs naturally as a levorotatory isomer which is the active principle of the adrenal medulla. Hamburger originally used 0.2 to 0.3 cubic centi-

meters as a subconjunctival injection, having first instilled holocaine.

This procedure was extensively followed for a time or modified in certain instances as by the use of a conjunctival pack (Gradle 1925). To avoid certain undesirable systemic reactions such as increased blood pressure or rapid pulse, Hamburger then substituted the synthetic dextrorotatory isomer termed "glaucon," which when injected subconjunctivally produced no systemic reaction and was known to lower the tension. To eliminate the injection, he next turned to concentrated adrenalin solutions and found that a 1 to 50 solution, to which was added an almost optically inactive substance, was effective by instillation. This he named "Laevo-Rotary" or "Links Glaucon." Adrenalin bitartrate in a 2 per cent solution or used in the ointment form is now most generally employed. The indication for adrenalin preparations seems to be largely in that group of cases of chronic simple glaucoma in which miotics are being used but are not quite successful in maintaining normal tension. In these patients short courses of adrenalin may help the miotic to keep the disease in check. Gifford also recommended it to control the glaucoma following cataract operation or discission. The ocular complication which arises from the use of adrenalin or similar preparations is an acute rise in tension soon after the treatment, apparently due to the accompanying mydriasis and subsequent blockage of the chamber angle. To prevent such an occurrence, the application of eserine 0.2 per cent for three times at intervals of ten minutes before and after the adrenalin has been recommended as of the utmost importance. Occasionally, even when the pupil is under the control of the miotic, an acute rise in tension has been reported. This danger seems to be over in six to eight hours. There is, of course, a difference of opinion as to which type of case is suited for adrenalin therapy but it seems to be the general consensus that it is contraindicated in those types of primary glaucoma accompanied by inflammation and that it should be reserved for the chronic simple variety in the manner already described.

Substances which make the blood hypertonic cause a withdrawal of fluid from the tissue spaces into the blood stream until the normal concentration is reached. The increased volume of isotonic fluid will then promptly enter the tissue spaces again if the substance which has been injected is not held back by the capillary walls. For ophthalmologic purposes the material should be one to which the intra-ocular capillaries are not permeable so that the preparation cannot diffuse into the aqueous. The first of these to be used was sodium

chloride intravenously in doses of 35 to 50 cubic centimeters of 30 per cent solution or 100 to 150 cubic centimeters of 10 per cent solution. It must be given slowly and care must be used not to inject outside the vein. Glucose is more convenient and less diffusible. One hundred to 250 cubic centimeters of 50 per cent solution or 200 to 500 cubic centimeters of 30 per cent solution is used, according to the size of the patient.

Matthew in 1937 favored the use of sucrose in doses of 400 cubic centimeters of 25 per cent solution intravenously, taking forty-five minutes to inject, in all cases of glaucoma, both primary and secondary, when the tension was above 40 millimeters (Shiötz). He states that to his own knowledge there are no contraindications, including diabetes, except markedly renal function. Lindbergh of Northwestern observes some renal drainage in dogs following the administration of sucrose.

In December, 1938, Bellow, Puntenney and Cowen recommended the use of sorbitol, a complex alcohol, as a substitute for any of the aforementioned intravenous therapy. One hundred cubic centimeters of 50 per cent solution was given intravenously over a period of one-half hour resulting in a reduction in tension reaching its maximum in twelve to twenty-four hours. Of course, fluids by mouth must be restricted in all cases following administration of any fluid depleting drug. In general, it can be stated that this type of treatment is especially indicated preoperatively in those patients in which the intra-ocular tension is high and does not respond to miotics.

Various other substances used by injection have been mentioned from time to time in the literature. "Cortin," an extract of the adrenal gland cortex, deproteinized liquid hog spleen, calcium in its various forms, and others have not generated much enthusiasm up to the present.

Ergotamine tartrate (gynergen) is dispensed in ampules for subcutaneous injection or in tablets for oral use. The usual subcutaneous dose is 1/250 grain, the oral dose 1/30 to 1/60 grain. Its action is to depress the end organs of the sympathetic nervous system and to decrease the permeability of the vessels. It may be a valuable addition to other methods of therapy in cases of iritis glaucomatosa where an operation can sometimes be avoided. Gifford has recommended gynergen as a transitory means of controlling the rise in tension which occasionally follows cataract extraction or discission; ergotamine tartrate given by mouth is not as effective as when administered by injection. The cost and inconvenience prevents its continued usage in most cases, except as an aid in the temporary reduction of hypertension.

The preoperative retrobulbar injection of 1.5

cubic centimeters of 2 to 4 per cent novacaine containing 4 minims of 1:1,000 adrenalin may be very useful in acute congestive glaucoma when the intra-ocular pressure cannot be reduced sufficiently by other means.

The general measures for the treatment of glaucoma are not unimportant. Cooperation between the patient and the physician should be stressed, particularly in regard to periodic observations and careful maintenance of home treatment. It has been recommended to avoid dark rooms and to be out of doors as much as possible on bright days. Emotional upsets are likely to be detrimental. Coffee is not to be taken and an occasional saline cathartic is administered if necessary for bowel regulation. Endocrine imbalances, if present, should be treated. The patient should understand that glaucoma is not curable but that blindness may be prevented, in the majority of cases, if treatment is instituted early enough.

In conclusion, I should like to emphasize that surgery is not intended to fall within the scope of this discussion. The indication for and the choice of such procedures are matters which should be dealt with in a much more extensive review of the subject.

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THE INCIDENCE, PROGNOSIS AND CURABILITY OF MALIGNANT LESIONS

A Brief Review

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How fitting it is to hold a meeting honoring the living! Such meetings are, I think, too rarely held. Consequently I wish to congratulate the members of the Woodbury County Medical Society for arranging this one and for their good fortune in having in their midst one who has practiced medicine for half a century. To have devoted fifty years to the care of the sick is truly a great achievement—an achievement few of us will accomplish. I am happy, therefore, to have a part in this tribute to Dr. Sawyer and to his tenacity of purpose and tireless effort. The only real payment that a physician obtains for his services is the priceless knowledge of work well done and the gratitude of those unto whom he has ministered. By these tokens our honored guest is indeed a wealthy man.

As I prepared these remarks I tried to reconstruct Dr. Sawyer's thoughts as he reviews his experiences of fifty years as a physician and sur-

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Read on December 14, 1944, at the meeting of the Woodbury County Medical Society, Sioux City, Iowa, held in honor of Dr. Prince E. Sawyer at the completion of fifty years of practice of medicine and surgery.

geon. Without doubt he can recall vividly scores of new treatments and new operations, which, when tested by time, proved of no value. I am certain he also can enumerate scores of true advances during the last half century.

Progress in medicine is made by perseverance, which requires time. Success, in this profession, as Sir William Osler said, is dependent on the one great key word, "work." In this connection I think it is important to keep in mind also that the advancement in medicine is based to a great extent on the work and experience of our senior contemporaries. Sadly enough, as young physicians we often are quick to question the ability and judgment of older and more seasoned physicians. When I received my medical degree some years ago I think my first thought was one of pity—not for myself, as it should perhaps have been, but pity for the senior members of my profession. I had countless answers to those questions that long had baffled the Dr. Sawyers of that time. Fate sometimes is kind, however, and in a few short years I was astonished at the improvement my tolerant senior fellow practitioners had made. In time, I learned to listen attentively to these older and more experienced physicians and I learned much from both the specialist and the general practitioner. It will be recalled that Sir James Mackenzie was a general practitioner and yet from his observations he presented the world with one of its greatest works on the heart.

When I think of something that seems to me to be a new idea, I find it worth while to search carefully some of Osler's first editions as well as texts on surgery written seventy-five to a hundred years ago, lest I be embarrassed by advancing a supposedly new idea that is in reality old. One should remind himself frequently to consult friends and acquaintances of more experience, such as Dr. Sawyer, before attempting to startle the world with a new idea. While serving as Dr. C. H. Mayo's first assistant, I devised an operation. In my opinion, it was far superior to the particular procedure he had been using. At the appropriate time I enthusiastically let Dr. Charlie in on the secret. Somewhat to my dismay, he made no reply. As time passed and I became capable of doing a bit of surgery, I persisted in expounding the idea, only to find myself mistaken and crestfallen. Dr. Charlie said, "You really feel disappointed about that, don't you?" I replied that I did. Then, in his comforting manner he said, "Well, don't take it too hard, when I tried that operation thirty-five years ago, it wasn't worth a damn!"

However, I have chosen as my subject for this evening "The Incidence, Prognosis and Curability of Malignant Lesions." Most of us see numerous

patients who have cancer and some of us spend a considerable part of our time in the care of persons so afflicted.

INCIDENCE

Malignant neoplasms are of frequent occurrence. They invariably result in death of the patient unless their progress is interrupted before they spread to distant structures and organs. The figures published by the United States Bureau of Vital Statistics demonstrate that cancer is increasing in frequency. At the present time malignant lesions are second only to diseases of the heart as a cause of death.

In 1940, 158,335 persons in the continental United States died because of malignant lesions. The mortality rate from this disease has increased steadily during the past forty years. In 1900, the mortality rate per 100,000 population was only 64.0. By 1925, it had risen to 92.0 and in 1940 it was 120.3. The actual increase is not as alarming as the figures might indicate. Improved methods of diagnosis account for some of the apparent increment. Also, more persons now live to older ages, the group in which cancerous lesions are most prevalent. However, even if the mortality rate from malignant lesions levels off and does not rise significantly during the coming years, which some statisticians predict, this still will be one of the greatest health problems facing the American people.

Cancer is not only an American problem. In all civilized countries it is one of the most frequent and fatal diseases. It is found even among the uncivilized and most remote tribes of human beings. The rich and the poor of every race are subject to it.

In recent years there has been a great wave of popular interest in the crippling disease of poliomyelitis. Millions of dollars have been collected to further our knowledge of this condition and to extend proper treatment to its victims. This is a commendable effort and one worthy of support, but the problem of poliomyelitis is a minor one compared with the devastating, and so far insoluble, problem of cancer. In the peak year of 1916, 27,621 cases of infantile paralysis were reported. A large majority (about 88 per cent) of these persons had no permanent residue of the infection and a relatively small number died of the disease. In this peak year for the incidence of infantile paralysis, the mortality rate was 10.5 per 100,000 persons; the mortality rate for cancer was 81.0. In 1940, the mortality rate for poliomyelitis was 0.8 per 100,000; for cancer it was 120.3.

The victims of poliomyelitis arouse our sympathies because so often they are children. Cancer,

however, also occurs in children. In 1931, Helmholz¹ collected from the files of the Mayo Clinic alone, 750 cases of malignant neoplasms in children less than fifteen years of age. Other large series of cases have been recorded.

PROGNOSIS AND CURABILITY

Although the incidence of cancer in children when compared with that of many other diseases is low, it is so often fatal that it assumes considerable proportions in the mortality statistics. For example, in the United States in 1940, 1,161 deaths in cases in which children were fourteen years of age or younger were attributed to cancer. In this same year there were only 320 deaths from typhoid fever, 572 from acute poliomyelitis and polioencephalitis, 1,069 from nephritis, 679 from acute rheumatic fever, 412 from diabetes mellitus, and 508 from scarlet fever (Table 1).

TABLE 1
Deaths from Certain Causes in Children up to Fourteen
Years of Age, 1940*

Disease	Deaths
Cancer	1,161
Typhoid fever	320
Poliomyelitis (acute)	572
Nephritis	1,069
Acute rheumatic fever	679
Diabetes mellitus	412
Scarlet fever	508

*U. S. Bureau of Census Vital Statistics, Special Reports, xv: 217 (April 15) 1942.

As a rule, malignant tumors of infants and children progress rapidly and metastasize early and widely. Recurrence may be prompt. However, the outlook is not hopeless. Many apparent cures have been recorded and even when cure is impossible much can be done to ameliorate symptoms and to prolong life.

Malignant tumors in elderly persons present a different problem. In children, sarcoma is the predominant type. In adults, carcinomas are much more frequent. In young persons the bones, brain, and eye are frequent sites of origin. Most of the malignancies in older persons are in the skin, stomach, intestines, breast, liver, gallbladder, prostate gland, and uterus, the lesion being in one of these locations in approximately 65 to 70 per cent of cases in the United States in which death is reported.

In adults, in contrast to children, malignant lesions often spread slowly and metastasize late. Sixteen months before preparation of this review, I examined a man seventy years of age who had a large carcinoma of the rectum which had been

producing symptoms for more than a year. I urged him to accept surgical treatment. He declined, however, and went home and thought the situation over for fifteen months. Recently he returned for surgical care. At operation there was no demonstrable metastasis and the growth was resected. His case illustrates the tendency toward slower growth of carcinoma in elderly persons. Unfortunately, many instances of fulminating, rapidly growing carcinoma in aged persons also could be cited. There is no excuse for any laxness or delay in treatment of carcinoma in elderly individuals since it is impossible to say with absolute certainty which lesion will grow rapidly and metastasize early and which one will not. The fact that malignancies in general do not spread as rapidly in adult life as in childhood is reflected in our results, for with proper treatment a large percentage of adults who have malignant lesions apparently can be cured.

The survival rates after treatment for malignant lesions vary considerably in accordance with the site of the primary lesion. This was illustrated in a symposium from the Mayo Clinic on the treatment of cancer of different types. Seventy-one per cent of 340 persons who underwent operations for carcinoma of the thyroid gland were still living five years later.² Forty-five per cent of 3,388 persons who were operated on for malignancies of the colon³ and 29 per cent of 2,138 persons who were operated on for carcinoma of the stomach survived for five years or longer.⁴ All patients received the best treatment we knew of, but at the end of five years only 29 per cent of the patients who had received surgical treatment for gastric cancer were alive, while 71 per cent of those who had had thyroid cancer survived. Gliomas of the brain and carcinomas of the prostate gland are notoriously difficult to eradicate and the survival rates are low. Cancer of the breast occupies a mid-position; 47.4 per cent of all patients who underwent operative resection were alive at the end of five years.⁵

If all persons could receive proper treatment while the malignant lesion is still localized and before it has spread to adjacent tissues and regional lymph glands, the results would be vastly improved. In the great majority of cases the malignant lesion begins in one organ or structure, and in this stage treatment affords splendid results. We have available at the present time all the necessary weapons to eradicate many types of malignant disease if we can apply them before the parasitic growth has gained a strong foothold.

Broders⁶ believes that there are certain criteria whereby the degree of malignancy and thus the prognosis can be determined on the basis of the

TABLE 2
Radical Amputation for Unilateral Carcinoma of the Breast of
Women: A Comparison of Five-Year Survival Rates
According to Grade of Malignancy; With
and Without Axillary Metastasis

Grade	With Axillary Metastasis		Without Axillary Metastasis	
	Patients Traced	Per cent Survivals	Patients Traced	Per cent Survivals
1	10	100.0	116	94.0
2	182	50.0	235	82.1
3	774	32.0	295	66.8
4	1,497	22.4	198	58.1

histologic structure of the growth. The four grades of malignancy described by him are predicated on the fundamental principle of cell differentiation. Grade 1 designates the less malignant and grade 4 the most malignant. In a grade 1 malignancy, cellular differentiation or self control ranges from almost 100 per cent to 75 per cent and undifferentiation ranges from almost nothing to 25 per cent. In a grade 2 malignancy, differentiation or self control ranges from 75 per cent to 50 per cent, and undifferentiation from 25 per cent to 50 per cent. In grade 3 malignancy, differentiation or self control ranges from 50 per cent to 25 per cent. In grade 4 malignancy, differentiation or self control ranges from 25 per cent to practically nothing, and undifferentiation from 75 per cent to practically 100 per cent.

That this system of grading helps in establishing a prognosis is illustrated by Harrington's⁵ results after surgical treatment of carcinoma of the breast (Table 2). There is a definite relationship between the grade of malignancy and the survival rates. The higher the grade of malignancy the fewer patients who survive.

Great caution should be exercised, however, in the interpretation of this system of grading in terms of treatment. The fact that a tumor is of grade 1 malignancy instead of grade 4 does not lessen its malignant characteristics. If the patient who has the grade 1 lesion does not receive proper treatment, the result will be the same as if a grade 4 lesion were present. There is a tendency to perform less thorough or less radical operations when the tumor is of low grade; if this practice is continued, the survival rates, with only a few exceptions, certainly will suffer.

At the clinic malignant lesions of the intestine are classified at the time of removal according to degree of spread. The classification used is a modification by Dukes⁷ of the Lockhart-Mummery method. In growths of type A (Dukes's method) the tumor is limited to the wall of the intestine, and lymph nodes are not involved. In a series of cases of malignant lesions of the rectosigmoid and lower sigmoid which I⁸ recently reported, 81.5 per

cent of patients who had a type A growth survived for three or more years without other treatment. In type B growths the malignancy has spread by direct continuity to extrarectal tissues, without metastatic involvement of lymph nodes. Of this group, 54.3 per cent were alive at the end of three years. In type C growths the malignancy is advanced and has involved the regional lymph nodes and also may have invaded adjacent organs and structures. Of this group, only 44.8 per cent were alive three years after operation. Unfortunately, there is another large group of malignant lesions which we do not even attempt to classify according to Dukes's method, since the majority of them are not amenable to any form of curative treatment. In these cases the malignant growth has spread extensively to distant organs and structures, such as to the liver, lungs, brain, or bones.

COMMENT

The chances for cure after proper treatment are related directly to the extent and activity of the growth at the time treatment is instituted. At the present time the great problem which faces clinicians and surgeons is how to increase the number of patients who receive adequate care early in the course of the disease.

In almost every civilized country in the world men and women are engaged in active research on the cause of cancer. Once the cause is determined, a rational form of treatment almost certainly will follow. A few years ago when a group of eminent newspaper men were asked their opinion concerning the greatest possible news event, nine out of ten agreed that the announcement of a cure for cancer would be the greatest news story. The day when cancer shall no longer claim tens of thousands of our citizens each year may be years or generations away; however, in the meantime much can be done.

Each year many persons lose their lives as a result of inadequate or actually harmful treatment by unqualified pseudophysicians. The ways of the quack are wily. In former days he posed as a medicine man in possession of some ancient and secret remedy. Since such remedies have been so thoroughly disproved, the quack now commonly baits his victims with the newest and most remarkable treatments such as electronics, ionization, gland extracts, and colloidal substances.

Treatment of malignant lesions by the application of roentgen and radium therapy and surgical procedures is a task which must be handled by a specialist qualified in this type of work. The responsibility of diagnosis and early recognition of cancerous growths and of guidance of public education, however, must be borne by every qualified physician.

Dr. C. H. Mayo once said, "I have always felt that cults can gain a great foothold only in a community in which the medical profession has not accomplished the work in hand and has not done what they should to educate the public." Consequently, our first task is to inform the public. Through the efforts of the American Cancer Society, other such splendid organizations, physicians and informed laymen, great strides have been made and will continue to be made, in disseminating accurate information to the public regarding cancer.

In conclusion I wish to say that it has been a great privilege to meet with this Society in honoring your friend and mine, Dr. Prince E. Sawyer. And if at any time, Dr. Sawyer, when alone with your thoughts you think you might have done more for mankind, may I suggest that you recall what Oliver Wendell Holmes once asked a colleague in Paris. The question was, "Which would give the most satisfaction to a thoroughly humane and unselfish being of cultivated intelligence and lively sensibilities: To have written all the plays which Shakespeare has left as an inheritance for mankind or to have snatched from the jaws of death a hundred fellow creatures and restored them to sound and comfortable existence?"

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ADMINISTRATION OF PENICILLIN BY MOUTH IN COMBINATION WITH ALUMINUM DIHYDROXY AMINOACETATE

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Charney¹ and his coworkers have demonstrated that the administration of 1.4 to 7.0 grams of trisodium citrate or 2.5 grams of disodium phosphate with penicillin following an overnight fast slightly increases the urinary excretion of pen-

icillin over values obtained after administration of penicillin in water alone. Penicillin with sodium citrate, given by mouth, produces greater and more prolonged increase of penicillin blood levels than penicillin ingested without a buffer salt. Satisfactory results were obtained in 23 patients with gonorrhea who were treated with oral penicillin and sodium citrate.²

Recently a new aluminum buffer antacid aluminum dihydroxy aminoacetate (Alglyn), has been investigated at the University of Iowa Hospital.^{3*} This is a combination of aluminum with glycine, containing 18.3 per cent aluminum, and 9.3 per cent nitrogen.⁴ The glycine causes rapid buffering action while the aluminum gives a prolonged effect. Prompt disintegration of tablets of this preparation within the stomach has been observed by means of the gastroscope. Krantz has shown that penicillin is absorbed slowly and is still present in the blood stream seven hours after the ingestion of a single dose of 100,000 units in combination with Alglyn.⁵

Penicillin, combined with Alglyn, was used in the treatment of acute gonorrhea in fifteen adults. The discharge disappeared and no organisms could be demonstrated within twenty-four hours in all but one patient. In this individual, gonococci, while still present twenty-four hours after oral administration of a single dose of 100,000 units of penicillin, subsequently disappeared following the ingestion of an additional 200,000 units of the drug. In these cases 100,000 to 300,000 units were used. Two other instances, in which the same medications were given, are reported in detail.

CASE REPORT I

History: A female twenty-four years of age was referred to the University of Iowa Hospital by the local health authorities. She had been treated here for gonorrhea on two previous occasions, the first time with sulfathiazole, and the second with penicillin, intramuscularly. Following each episode, cultures were negative for *Neisseria gonorrhoeae*. At the time of the first infection, a positive Wassermann reaction was obtained, and she was given routine antisyphilitic therapy. Arsphenamine was administered until she developed a toxic hepatitis with marked jaundice. This responded promptly to intravenous glucose. After a course of oral bismuth, Kolmer, Kline and Kahn tests were negative. She stated that she was free of infection until five days prior to the present admission, when she again noticed profuse vaginal discharge.

Physical Examination: The physical findings

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*Alglyn supplied by Meta-Cine Company, Chattanooga, Tennessee.

were essentially normal, except for the pelvic examination. There was slight abdominal tenderness, but no masses were palpated. The outlet was marital and well supported. No Sanger spots were present about Bartholin's or Skene's glands. Some mucoserous exudate was expressed from these glands. The vaginal canal was shortened due to elongation of the cervix. The uterus was of normal size, but fixed in the midposition. No adnexal masses were felt. On speculum examination the vaginal mucosa appeared inflamed. The cervical os was closed and a profuse yellowish mucoid discharge was easily expressed. Smears of this discharge showed gram negative diplococci, intra- and extracellular and many pus cells.

She was given two 0.5 gram Alglyn tablets in midmorning, followed in ten minutes by 100 cubic centimeters of a mixture containing 100,000 units of penicillin and two 0.5 gram Alglyn tablets. Thirty minutes later two more Alglyn tablets were administered. Cultures were obtained before administration of the drug, two hours later, every hour for the next four hours, the following day, and one week later. Pelvic examination on the following day and one week later were essentially normal.

Bacteriologic Studies: Swabs inoculated from the urethra and cervix were placed in broth and taken to the laboratory immediately. The swabs were used to inoculate blood agar plates which were incubated under 10 per cent carbon dioxide at 37 degrees centigrade. After twenty-four hours' incubation the plates were flooded with an oxidase reagent and examined for suspicious colonies. Oxidase positive colonies were used to inoculate nutrient agar slants and serum sugar agar slants containing the following sugars: dextrose, maltose, lactose, and sucrose. Smears were made of suspicious colonies on the blood agar plates and from the slants and examined for typical morphology and staining reaction.

Cultures from urethra and cervix grew out numerous colonies of *Neisseria gonorrhoeae*. Cultures taken two hours after administration of penicillin and hourly thereafter for four hours were all negative for *Neisseria gonorrhoeae*. Cultures taken the following day and one week later were still negative.

CASE REPORT II

History: A male 19 years of age was admitted to the isolation service of the University of Iowa Hospital with a diagnosis of scarlet fever. Eight days previously he had developed malaise, sore throat, and fever. Sulfadiazine had been administered from the time of onset until time of admission. At first some improvement had been noted,

but two days prior to entrance to isolation, symptoms became worse. A generalized rash appeared twelve hours before examination. Rectal temperature was 101.4 degrees. The physical examination was normal, except for those findings typical of uncomplicated scarlet fever. The urine was normal and the white blood cell count was 12,300 per cubic millimeter.

Course: In addition to supportive and symptomatic treatment, the patient received 60 cubic centimeters of pooled convalescent serum. The eruption disappeared gradually over a period of two days, and, while he showed some improvement, temperature varied between 100 and 105 degrees. The urine continued negative, the white blood cell count ranged between twelve and 21,000, with polymorphonuclear leukocytes predominating. On the fifth hospital day he complained of nausea, malaise, increased sore throat, conjunctivitis, and unilateral frontal headache. The pharynx was markedly injected and edematous, tenderness was present over the left frontal sinus, and the conjunctivae were inflamed. The ears, lungs, heart, and joints remained normal. Two grams of sulfadiazine were given, following which he developed generalized urticaria.

Conservative treatment was continued, but the patient made no progress. Symptoms, fever, and leukocytosis persisted, but the urine remained normal. On the eleventh hospital day oral penicillin was started. He received 20,000 units every three hours with 0.5 gram of Alglyn before each dose. Within twenty-four hours there was subjective and objective improvement, the temperature dropped to 99.6 degrees, and the leukocyte count was 10,000. Two days later, 20,000 units of penicillin were given every four hours and continued for five days. For the first three days the temperature varied between 98.6 and 101.4 degrees, and remained normal for the rest of his hospital stay. Symptoms and signs disappeared along with the fever. Attempts were made to determine the blood level of penicillin, and it was estimated that four units per 100 cubic centimeters of blood were present at two and one-half and four hours after the ingestion of the drug.

COMMENT AND SUMMARY

Sixteen patients with gonorrhea, and one with sinusitis complicating scarlet fever were treated with oral penicillin and aluminum dihydroxy aminoacetate (Alglyn) as a buffering antacid. The patients with gonorrhea were given 100,000 to 300,000 units of penicillin while one patient, a female, showed clinical and bacteriologic cure with only 100,000 units of penicillin given as a single dose. Within two hours gonococci could

no longer be cultured from the cervix. A young male who developed acute sinusitis during the course of scarlet fever, and could not tolerate sulfadiazine, made a prompt clinical recovery after 320,000 units in divided doses were given. Alglyn, because of its immediate and prolonged buffering action, is a satisfactory antacid to combine with penicillin for oral administration. These studies are being continued with tablets of Alglyn containing 10,000 units of dry penicillin in each 0.5 gram tablet.

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CLINICOPATHOLOGIC CONFERENCE

THROMBOSIS OF THE HEPATIC VEINS
(CHIARI'S DISEASE)

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CASE REPORT

Abstract of Clinical History: The patient, a white male twenty-one years of age, was admitted to the hospital in April, 1941, because of abdominal cramps and abdominal fullness. He stated that for two months prior to admission he had been markedly constipated necessitating the frequent use of laxatives (chiefly cascara and citrate of magnesia). About the same time he became constipated he noted malaise. Six weeks before admission he began to have abdominal cramps. These cramps were unassociated with fever, nausea, vomiting, acholic or bloody stools, or weight loss. Shortly after the onset of the abdominal cramps he also noted that his abdomen was increasing in size. When he was admitted to the hospital he was told that there was fluid in his abdomen. An abdominal paracentesis was done and 2,000 cubic centimeters of clear straw colored fluid were removed. The cause of the ascites was not ascertained. He was then transferred to another hospital in May, 1941, with the diagnosis of obstruction of the portal system, type and cause undetermined.

The family history was not remarkable.

Past History: The patient denied the use of alcohol. He had pneumonia in 1932. He denied venereal disease.

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Physical Examination: On admission to the second hospital the patient's weight was 173 pounds. His normal weight was 175 pounds. The sclerae were slightly yellow. The pulse was 88. The temperature was normal. The blood pressure was 135/90. The heart was not remarkable. The lungs were clear to auscultation and percussion. The abdomen was markedly distended. A fluid wave was easily elicited. There was a small surgical incision just to the left of the umbilicus that drained clear yellow fluid. This was the site of the abdominal paracentesis. The liver was palpated 3 centimeters below the right costal margin. The liver was smooth and its margin fairly sharp. The spleen was not palpable. There were two external thrombotic hemorrhoids. There was an enlargement of the proximal portion of the spermatic cord. This was interpreted as a spermatocele. The neurologic examination was negative.

Laboratory Examination: The Kahn reaction was negative. The red blood cell count was 4,800,000. The white blood cell count was 5,500. The hemoglobin was 15 grams (H & H). The stools were normal in color and texture and were consistently negative for blood, parasites, or ova. The bleeding time and the coagulation time were normal. The icterus index was 25. The plasma cholesterol was 188 milligrams per 100 cubic centimeters. The blood nonprotein nitrogen was 25 milligrams per 100 cubic centimeters. The blood sugar was 100 milligrams per 100 cubic centimeters. The blood chlorides were 470 milligrams per 100 cubic centimeters. The ratio of the direct and

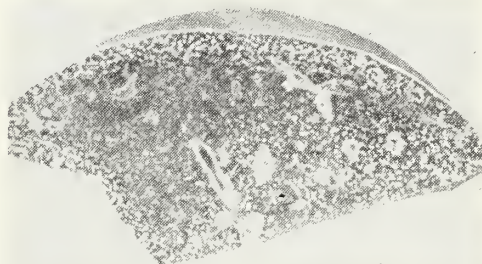


Fig. 1. Photograph of gross appearance of the cut surface of the liver, showing the marked "nutmeg" appearance and multiple thromboses of the hepatic veins.

indirect serum bilirubin was 60 per cent. The carbohydrate tolerance test indicated a slightly limited inability to metabolize sugar. A bromsulphalein liver function test showed 70 per cent retention of the dye at the end of twenty minutes. This was repeated and the same results were obtained. Urinalyses showed a one to two plus reaction for albumin. The urine was otherwise normal. A barium enema was reported as negative.

A roentgenogram of the chest on admission was normal.

Course: A few days after admission an abdominal paracentesis was done and 1,000 cubic centimeters of clear yellow fluid were removed. Following the paracentesis the liver was easily palpable. It was again found to be smooth, firm, and slightly enlarged. On May 8 the patient complained of anorexia. On May 18 a chest roentgenogram indicated obliteration of the costophrenic angles, presumably by fluid. On the same day the blood pressure was recorded as 150/100. The icterus index was 20. The temperature for the first time since hospitalization was elevated to 100 degrees. The liver had increased in size and extended 6 centimeters below the right costal margin.



Fig. 2. Photomicrograph of the liver showing extreme destruction of the major portions of the lobules with preservation of the lobular peripheries. An organized thrombosed hepatic vein is present in the middle of the picture. (x 75)

The abdominal fluid recurred with great rapidity. The patient became progressively weaker. An abdominal paracentesis was done on May 16, 20, 22, June 1, and June 6 with the removal of a total of 16,750 cubic centimeters of fluid. At no time did the fluid contain blood or have any of the features other than the characteristics of a transudate. On June 11 a biopsy of the liver was done. This was reported by the pathologist as showing extreme chronic passive congestion suggestive of the type of change occurring in hepatic vein thrombosis. An abdominal paracentesis was done on June 26 with the removal of 3,800 cubic centimeters of clear yellow fluid. On July 1, 5,000 cubic centimeters of fluid were removed. On July 2 the patient was irrational; the pulse was rapid, weak and thready; the blood pressure was 106/80.

The patient expired on July 3. Throughout the entire hospital course the temperature was elevated only once. This occurred on May 18. The duration of the illness was five months, three days. From April, 1941, to July, 1941, a total of 27,000 cubic centimeters of abdominal fluid was removed.

Clinical Diagnosis: Chiari's disease (?).

NECROPSY ABSTRACT

External examination of the body revealed a slight icterus of the sclerae and skin. There were petechial hemorrhages of the conjunctivae, left lower eyelid, and trunk. The peritoneal cavity contained 4,000 cubic centimeters of clear yellow fluid. The hepatic flexure of the colon was adherent to the gallbladder by dense fibrous adhesions. The right pleural cavity contained 600 cubic centimeters of clear yellow fluid. The left pleural cavity contained 1,200 cubic centimeters of a similar fluid. Forty cubic centimeters of clear yellow fluid were present in the pericardial cavity. The liver was enlarged, weighing 2,060 grams. It was firm, rubbery, and finely granular. The cut surface presented the "nutmeg" appearance of chronic passive congestion with the central two-thirds of the lobules composed of sunken red homogeneous tissue surrounded by pale gray-white elevated firm tissue (Fig. 1). In many instances the abutting lobular peripheries were confluent. The hepatic veins were occluded by recent and old thromboses. The thrombi extended to the ostia of all of the hepatic veins. The spleen weighed 235 grams. Grossly it presented the typical appearance of a congested spleen. There were several small infarcts. The heart weighed 235 grams. The left auricle was slightly dilated. At the line of closure of the mitral valve, there was a row of reddish gray friable polypoid vegetations, none of which measured over 1.5 millimeters in height. The valve was moderately puckered and thickened with a slight reduction in circumference. The gallbladder was reduced in size. It measured only 2.5 by 1.5 centimeters. The wall was thickened. The serosa was slightly injected. The gallbladder contained golden yellow bile.

Microscopically, there was marked congestion and atrophy of the central portions of the lobules (Fig. 2). The central veins and sinusoids were dilated and filled with red blood cells. The adjacent liver cells were destroyed. Hemosiderin pigmentation was prominent. The only viable liver cells were situated in juxtaposition to the periportal spaces. The hepatic veins were invariably filled with thrombi in all stages of development. Some were recent (Fig. 3); some were organized (Fig. 2); and some were recanalized. The wall of the gallbladder was infiltrated by inflammatory cells consisting of polymorphonuclear leukocytes,

lymphocytes, plasma cells, and large mononuclears. In addition, there was considerable fibroblastic proliferation. Sections of the mitral valve revealed a bacterial endocarditis. The cultures of the mitral valve vegetations, heart's blood, and the lungs yielded *Streptococcus viridans*.

Anatomic Diagnoses:

1. Thrombosis, hepatic veins.
2. Cholecystitis, chronic, marked.
3. Deformity, fibroplastic, mitral valve, ancient.
4. Endocarditis, bacterial (*Str. viridans*).
5. Septicemia, *Streptococcus viridans*.
6. Infarcts, spleen, small, secondary to bacterial endocarditis.
7. Hemorrhages, petechial.
8. Ascites, massive.
9. Pneumonia, interstitial, bilateral.

COMMENT

This is a typical case of thrombosis of hepatic veins with a superimposed terminal bacterial endocarditis. That the bacterial endocarditis was ter-

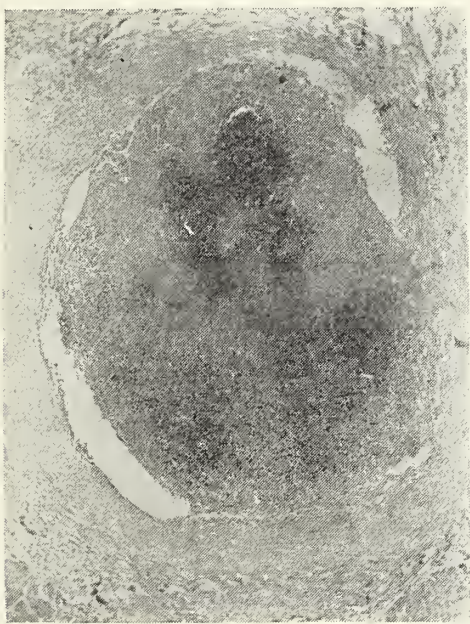


Fig. 3. Photomicrograph of a hepatic vein containing a recent thrombus. The sclerosis of the wall and inflammatory infiltrate can be seen. (x 225)

minimal is supported by the obvious discrepancy between the duration of the two diseases. Indicative of the comparative recentness of the endocarditis was the minuteness of the vegetations and the minimal organization of their bases. On the other hand, the dilation of the hepatic veins, the extensive organization and recanalization of the thrombi pointed to the existence of the hepatic lesions for some time. The thromboses of the hepatic veins presumably occurred on the basis of a phlebitis secondary to the chronic cholecystitis.

DISCUSSION

Since the original work by Budd,¹ approximately 75 cases of hepatic vein thromboses have been reported. These cases can be divided into four groups: (1) Those associated with intra-abdominal inflammation; (2) those associated with cardiac disease or circulatory disturbances; (3) those associated with compression or the mechanical blockage of the hepatic veins; and (4) those in which the etiology is obscure. In the first group, in which the thromboses were associated with intra-abdominal inflammation, the inflammatory process varied from pancreatitis to peritonitis. Presumably as a result of the inflammatory process, there was phlebitis of the hepatic vein or veins, followed by thrombosis. Once the process begins, there follows propagation of the thrombus into the various ramifications of the hepatic veins. The second group constitutes roughly about 50 per cent of all of the cases reported. In this group a number of cases were associated with polycythemia vera,² a malady in which thromboses are frequent. Most of the other cases occurred with congestive heart failure, whatever the type of heart disease. In the third group are cases in which the hepatic veins were obstructed by neoplasm, granulomatous tissue, echinococcal cysts, or scar tissue.

Clinically, thrombosis of the hepatic veins is characterized by massive, frequently recurring ascites associated with enlarged liver and an elevated venous pressure.³ The most common antemortem diagnosis is Laënnec's cirrhosis. The condition is invariably fatal. Usually it runs a course that is measured in months. The hepatic changes produced by thrombosis of the hepatic veins is well illustrated by the foregoing case, consisting of a marked congestion with hemorrhagic replacement of the central portions of the lobules and persistence of the hepatic cells at the lobular peripheries. Simonds and Callaway⁴ and Simonds and Jergesen⁵ have experimentally reproduced the pathology seen in the human cases, by mechanical constriction of the hepatic veins in the dog. The ascites is related to portal hypertension secondary to the obstruction of the hepatic veins.

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STATE DEPARTMENT OF HEALTH

Walter L. Biering

Epidemic of Ringworm of the Scalp

Ringworm of the scalp has in recent months become unusually prevalent in eastern Iowa and other localities of the state. An article by Lewis and associates¹ mentions the occurrence of several thousand cases of ringworm among children in New York City, the epidemic having begun during 1943.

Increased incidence of tinea capitis is attributed to various factors which favor spread of the disease, such as lessened maternal care due to employment away from home, overcrowding and change of residence, increased contact with the world at large through coming and going of war workers.

NATURE AND CAUSE OF TINEA CAPITIS

Tinea capitis is caused by one of several species of pathogenic fungi. Infection of the scalp begins as a small area of scaling around hair follicles. The affected areas, characterized by itching, tend to enlarge and form patches. The hair loses lustre and breaks easily close to the root; areas of baldness may develop. According to I. M. Felsher,

M.D., of Northwestern University, *Microsporon audouinii* is the causative agent in 87 per cent, *M. lanosum* in 8 per cent, other fungi in 5 per cent of the cases.

The accompanying photograph (Fig. 1) taken from an excellent and profusely illustrated article by MacKee and Remer,² shows the typical appearance of lesions in ringworm of the scalp.

MODES OF SPREAD

Dermatophytosis is conveyed from infected to healthy persons through direct contact or by means of objects (backs of seats, combs, caps, etc.) contaminated by the fungus. Infection spreads among children in school and at play. Unless precautions are taken, theaters and barber shops become centers for further spread of the disease.

DIAGNOSIS

The following aids in diagnosis of ringworm of the scalp are outlined by Felsher:

1. Clinical appearance of lesions.
2. Use of Wood's light, producing filtered, ultra-violet rays. When viewed in a darkened room, affected hairs appear as copper or emerald green fluorescence. "A single affected hair may be identified."
3. Examination of hairs and scales in 10 per cent potassium hydroxide for mycelia and spores.
4. Culture of hairs and scales in Sabouraud's medium.

TREATMENT

The Department is indebted to R. E. Jameson, M.D., of Davenport for the following procedures which he has found useful in the care of cases of ringworm of the scalp:

A. Cutting and Epilation of hair:

1. The patient's hair should be cut short with clippers or scissors over areas involved; this should be repeated every three weeks. Collect hair in paper and burn immediately. If the barber cuts hair, patient should take own scissors and comb for barber to use.
2. A most important procedure is epilation, with

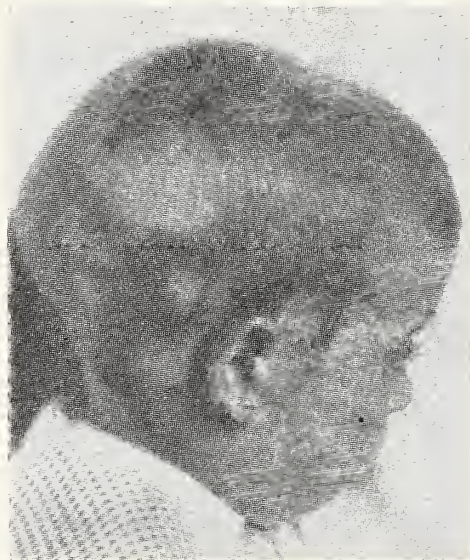


Fig. 1. Multiple patches of small-spore ringworm.
(From MacKee and Remer²)

tweezers, of all affected hairs in the scalp area(s) involved.

B. Regimen of Medication:

The parent is instructed as follows:

1. The scalp should be shampooed each morning before breakfast, preferably with tincture of green soap.

2. Liquid antiseptic agent to be applied each morning after breakfast. Using cotton swab, saturate infected hair area with the liquid. (The following ingredients comprise a satisfactory liquid antiseptic: Salicylic acid [U. S. P.] 10 grams; acetone, 33 cc.; ethyl alcohol 33 cc.; glycerol [U. S. P.] 33 cc.)

3. Ointment (e. g. salicylic acid 2-5%, or ammoniated mercury 5%) to be rubbed into affected scalp daily at bedtime until further notice.

4. Periodic visits to attending physician, for observation and further treatment as indicated.

C. Protection of Scalp:

1. Paper caps may be made of Kleenex, other soft paper or old newspaper, so as to cover the entire hair area. The paper cap should be removed and burned each day, and replaced by a new one.

2. A cloth scalp cap is necessary to fit over the paper cap and to cover the entire scalp. The upper part of a lady's stocking is very useful for this purpose.

3. The paper and stocking caps are to be worn day and night, indoors and outdoors. When under proper treatment and so long as the scalp is covered constantly, a child may return to school and play with other children.

4. Before stopping treatment for ringworm of the scalp, the patient should be seen by the attending physician.

Treatment With X-ray: Lewis and associates¹ state, "It is our belief that x-ray epilation is best carried out under the direction and supervision of a dermatologist. There is often failure to realize that epilation of the scalp is a precise, difficult procedure requiring a calibrated machine and specific training of the operator."

The writings of MacKee and Remer,² Hazen³ and MacKee⁴ consider x-ray treatment from the standpoint of specialists in this field.

CONTROL AND PREVENTION

1. *Reporting to Health Officials:* The approximate number of cases and epidemics of ringworm of the scalp should be notified to local and district health officials and to the State Department of Health.

2. *Early Recognition:* Early and accurate diag-

nosis is dependent upon the attending physician. Equipment supplying filtered ultraviolet light, Wood's light, is a valuable aid in discovery, control, and follow-up of ringworm of the scalp in school groups.

Services rendered by public health, school, and visiting nurses are essential to satisfactory control of this infection.

3. *Isolation:* Infected children should stay home from school unless under proper treatment. School attendance is permitted on condition that the patient constantly keep the head covered with a paper cap and a cloth or stocking cap.

4. *Avoiding Contact:* Parents and children must cooperate with health and school officials in observance of precautionary measures. Children should be taught not to lean their heads against seats in theaters, buses or other places where there might be contact with infection. Caps and combs should not be exchanged at school.

Barbers should be especially careful in sterilizing their instruments in areas where ringworm is prevalent. Scissors, combs, and hand clippers may be disinfected by washing with soap and warm water, then immersing in 10 per cent lysol or similar disinfectant for not less than fifteen minutes. Boiling instruments for five minutes in 1 per cent lysol is also a satisfactory method of disinfection.

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2. MacKee, G. M., and Remer, John: X-ray treatment of ringworm of scalp. *M. Rec.*, lxxxviii:217-226 (August 7) 1915.
3. Hazen, H. H.: Roentgen-ray treatment of tinea tonsurans. *J. Cutaneous Dis.*, xxxvii:307-312 (May) 1919.
4. MacKee, G. M.: X-rays and Radium in the Treatment of Diseases of the Skin; third edition. Lea and Febiger, Philadelphia, 1938.

PREVALENCE OF DISEASE

Disease	April '45	March '45	April '44	Most Cases Reported From
Diphtheria	18	20	13	Wapello, Cerro Gordo, Black Hawk
Scarlet Fever	239	367	846	Polk, Marshall, Des Moines
Typhoid Fever	0	0	1	Cerro Gordo, Fayette, Floyd
Smallpox	4	1	7	Woodbury, Pottawattamie, Polk
Measles	174	216	815	Des Moines, Dubuque, Boone
Whooping Cough	14	11	42	Benton, Cerro Gordo, Chickasaw
Brucellosis	9	33	10	Dubuque, Lee, Story
Chickenpox	347	462	299	Boone, Cedar, Des Moines, Dubuque
German Measles	4	5	31	
Influenza	0	0	50	Benton, Webster
Malaria	2	3	0	
Meningococcus				
Meningitis	15	10	14	Polk, Cerro Gordo, Dubuque
Mumps	418	393	304	Dubuque, Des Moines, Woodbury
Pneumonia	9	25	48	Polk, Benton, Hancock
Poliomyelitis	0	0	0	
Tuberculosis	64	60	114	For the State
Gonorrhea	228	262	131	For the State
Syphilis	105	94	186	For the State

The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

LEE FORREST HILL, Editor.....Des Moines
DENNIS H. KELLY, Associate Editor.....Des Moines

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SKELETON HOUSE OF DELEGATES TRANSACTS SOCIETY'S BUSINESS

The July issue of the JOURNAL will carry a verbatim account of the transactions of the 1945 House of Delegates of the Iowa State Medical Society which met in Des Moines April 18 and 19. In the meantime mention in these columns of some of the more important happenings may be of interest to our readers.

A meeting of the House was made possible only by the ingenuity of the Society's officers who hit upon the plan of having three delegates from each councilor district certified as voting members. The thirty-three thus recruited, plus the vote of the elected officers, gave a skeleton House of Delegates of slightly less than fifty members as required by the regulations of the Office of Defense Transportation.

Several important changes were made as the result of President Hennessy's opening address to the delegates. His suggestion that the President and President-Elect should both be required to address each annual session of the House of Delegates on the affairs of the Society was adopted. A second recommendation that voting privilege should be restricted to the delegates from county societies with the president voting only in case of a tie is scheduled to come up for final decision at the 1946 meeting.

It was deemed inadvisable that the President should automatically become one of the delegates to the American Medical Association because his term of office in this capacity would be too short. However, it was approved that a report be required of the delegates to the national organization for the information of the Society and that this

report should be published in the JOURNAL. President Hennessy's remarks were approved concerning the danger of outside speakers provided by the Speakers Bureau stifling local participation in county medical society programs. In the future greater care will be taken to encourage local men to appear on programs with guest speakers.

One of the most important changes made by the 1945 House was in the matter of reorganization of committees. The Medical Library, Military Affairs, and Woman's Auxiliary Advisory Committees were abolished. The Committee on Medical Service and Public Relations was made a standing committee of the House of Delegates. It will consist of at least seven members who will serve in Iowa in a similar capacity as and in cooperation with the Council on Medical Service and Public Relations of the American Medical Association. The Committees on Medical Economics and Public Relations will become subcommittees of the larger committee, the members of whom propose to meet jointly at monthly intervals. Contact men will be designated for the various state agencies having to do with public health, such as the State Department of Health, the Basic Science Examining Board, the Board of Medical Examiners, the State Department of Social Welfare, the State Board of Control and the institutions under its jurisdiction, and the various veterans organizations. Thus it is hoped that a means will have been provided for much closer cooperation between the Iowa State Medical Society and the organizations mentioned above, with benefit accruing to all groups. The name of the Committee on Public Policy and Legislation was changed to the Committee on Legislation, whose duties shall be confined to state legislative matters with national legislation being the responsibility of the Committee on Medical Service and Public Relations.

For the past several years, ever since the formation of the Executive Council, the Council has functioned less and less in its original capacity, but has been most active as a part of the Executive Council. A revision in the by-laws reserves for the Council its primary purpose of organizing and building up strong county medical societies in the Councilor districts. Transferred to duties of the Executive Council were those of acting as the Board of Censors of the Society, and acting as the agency through which the State Society shall communicate the views of the profession in regard to health matters, establishing working relations with other agencies concerned with related activities, and extending and promoting the distribution of medical science. Since the Executive Council has the power of the House of Delegates in between duly authorized sessions, it is the logical body to

carry out these duties, and it is hoped that the new arrangement will bring a greater harmony and efficiency into the enactment of State Society policies.

BENZEDRINE IN TREATMENT OF OBESITY

The management of obesity has long been a perplexing problem. Dietary restrictions alone are slow in producing results unless they are very low in calories. Numerous endocrine products have been employed but have proved of little benefit. Recently Albrecht¹ has reported a series of 300 cases of obesity in which benzedrine sulfate has been administered as an adjunct in the management of the condition. Just how benzedrine acts to reduce weight is not entirely clear, but it does decrease the appetite of the obese patient. The drug apparently relaxes the stomach and increases the tone of the pylorus, delaying the emptying time of the stomach.

The dosage of benzedrine varied from 10 milligrams to 30 milligrams daily in divided doses. Treatment was started without any dietary restrictions being imposed. When an optimal weight for the individual had been attained, the patient was advised to go on a 900 to 1,000 calorie diet. All patients with the exception of one lost weight while taking the drug. The average weekly weight loss while taking the drug was about four pounds.

Following the use of benzedrine, 12 per cent of the patients experienced palpitation, necessitating discontinuance of the drug in 4 per cent. Anxiety was present in 14 per cent of the patients. Dryness of the mouth was experienced by 56 per cent of the patients, but this symptom was relieved by the chewing of gum. Headache occurred in 32 per cent of the cases. Approximately 30 per cent of the patients showed an average rise of 8 millimeters of mercury systolic pressure and 3 per cent had an elevation of 10 to 15 millimeters.

Administration of benzedrine is contraindicated in (1) hypersensitivity to epinephrine-like compounds, (2) coronary or other cardiac conditions, (3) excitability, and (4) insomnia.

From this study benzedrine cannot be considered a panacea, but rather an effective adjunct in the management of selected cases of obesity. The weight loss is not permanent and returns when the drug is discontinued unless the patient remains on a restricted diet. Under this type of treatment the patient must be checked at frequent intervals and the drug discontinued if upward symptoms arise.

REFERENCE

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PHYSICIAN-HEALTH DEPARTMENT COOPERATION NECESSARY IN VENEREAL DISEASE CONTROL

The leading *editorial* in the May 15 issue of the *New York State Journal of Medicine* deals with the problem confronting the physician, not only in treating his patients who have venereal disease but also his responsibility to the public in attempting to learn the source of the infection and the identity of contacts who may have subsequently become infected. Says the editorial, "The great burden of venereal disease therapy rests upon the individual physician, especially in large areas of rural populations. The responsibility of venereal disease control, however, rests in the state and local health departments. These are confronted with a problem which requires for its solution a greater degree of assistance from the practicing physician than merely early and proper therapy.

"In the delicate task of securing information concerning sexual contacts of patients with venereal disease of recent acquisition, the physician who embodies the patient's hope for cure holds an advantage which no other person can attain. Especially at the moment when diagnosis has been made, before treatment is begun, information may be secured, not only concerning the presumed source of infection, but in respect to the sometimes large number to whom the disease may have been transmitted." The editorial goes on to say that in most instances full cooperation is forthcoming from physicians, even among their private patients, in identifying both sources and contacts through their recognition of their responsibility in a serious public health problem, and that only occasionally does it happen that the physician sacrifices his larger duty to the public for the private interests of his patient.

But there is still another angle to the problem which requires the physician's cooperative participation in this public health activity. Some 3,300 exposures to venereal infection were reported to the Iowa State Department of Health in the calendar year of 1944. It is the policy of the Health Department to tell these contacts of their exposure and to urge them to report to the physician of their choice for examination, or if indigent to a venereal disease clinic. Here again it occasionally happens that such patients, even though financially able, feel that some governmental agency should pay the physician for the examination, and occasionally the physician may feel the same way. Thus far no provision by any governmental agency in Iowa has been set up for paying such fees; nor would it seem advisable that such should be the case, either in the matter of examination of the

contact or of reporting of contacts. The JOURNAL is of the opinion that the majority of Iowa physicians are aware of and accept their joint responsibility in the public health aspects of venereal disease control but still wish to preserve their patient-physician relationship so far as the payment of fees is concerned, even in this field.

BRONCHIECTASIS COMPLICATING VIRUS PNEUMONIA

Although atypical pneumonia has a relatively low mortality rate, the patient is usually incapacitated for long periods of time and recent studies reveal a high incidence of bronchiectasis following this disease.

Kay¹ recently reported a series of forty-five cases of bronchiectasis treated in one year. Twenty patients in the series developed the symptoms of bronchiectasis following an atypical pneumonia, implying a definite cause and effect relationship.

None of the patients had symptoms referable to the pulmonary tract prior to the pneumonia. The attacks of atypical pneumonia were characteristic of the condition except that the patients failed to recover in the usual period. After the acute attack subsided the cough persisted and became increasingly productive, basilar râles continued and roentgenograms showed an unresolved pneumonia. After these signs and symptoms persisted for several months, bronchography confirmed the presence of bronchiectasis.

In three patients the bronchiectasis appeared to be reversible in that the bronchograms ultimately became normal. In the remaining seventeen patients there were extensive bronchial and bronchiolar destruction with permanent damage. Ten of these patients have had lobectomies, from six to thirteen months after the acute attack, with no operative mortality.

Bronchiectasis is an acquired condition attributed to bronchial infection and obstruction with resulting atelectasis and the subsequent development of bronchial dilatation.

According to Kay, when atypical pneumonia runs a protracted course and is associated with x-ray evidence of atelectasis, measures should be employed to relieve the obstruction and atelectasis. Such measures consist of expectorants, steam and menthol inhalations, and postural drainage. Continued rest in bed should be insisted on until all evidence of pulmonary infection has disappeared. In the event this conservative treatment fails to clear up the condition, bronchoscopic aspiration

should be done and the edematous ulcerated membrane shrunk with epinephrine hydrochloride. If the productive cough persists, bronchiectasis should be suspected and bronchograms made.

REFERENCE

1. Kay, E. B.: Bronchiectasis following atypical pneumonia. *Arch. Int. Med.*, lxxv:89-104 (February) 1945.

HOME NURSING AND THE BUSY DOCTOR*

Your patient who sits overtime in your reception room or who waits through long anxious hours for your call to see the youngest child has really made very few complaints. The demands upon the time of the doctor, the nurse and the hospital are by now well known. Nevertheless, human nature changes little and there are times when, in spite of judgment and understanding, there is a feeling of frustration, of utter helplessness. Imagination runs rife, fear overshadows reason. Both the patient and the physician are unhappy and relations are strained. But what is there to do?

The American Red Cross is trying very hard to do something—something practical, tangible and sound. Free courses in "Home Nursing" are being organized throughout urban and rural America. The wives, sisters, mothers, and often the fathers are attending. More than one and a quarter million certificates have been given. The principal idea behind the Home Nursing Course is to assist in sparing the physician, the nurse, and the hospital in these times by preparing someone in the home to handle simple illnesses as well as by providing worthwhile training for the homemaker which will reflect itself in better family health and better understanding of community and public health measures. Many other benefits to all concerned accrue incidentally.

Physicians in certain areas have already felt the effects of this program and have endorsed it heartily. Others are as yet not acquainted with its content.

The origin of the Home Nursing Course was in the year 1908 when Mabel Boardman, a charter member of the American Red Cross Central Committee, arranged for a series of talks to women about "Hygiene of the Sickroom, Dietetics, Tuberculosis, Contagious Diseases, Mother and Baby Care, and Medical and Surgical Emergencies." With World War I, the courses gained in popularity only to drop into a state of limited activity soon after the war's close. The Home Nursing Course had come into definite being, however, and with Pearl Harbor, interest again increased and is rapidly soaring at the present time.

*Prepared by Raymond F. Barnes, M.D., Director, Medical and Health Service, Midwestern Area, American Red Cross.

Two types of courses are offered currently to adults: the standard course requiring a minimum of twenty-four hours and a new streamlined course titled "Six Lessons in the Care of the Sick" requiring twelve hours. The short course has been designed for very busy, hard-to-reach adult groups and covers only the basic procedures in home nursing.

Much care has been given to the material which has gone into this program. The student is specifically told that these classes do not make of her a nurse nor is she being taught to supplant the doctor. She is taught such specific things as how to recognize the most common signs of illness; what information to give the doctor when he is called; how to carry out the various procedures which he may recommend; how to take a temperature and to read a thermometer; how to give an enema; how to bathe and handle a bedfast patient with least disturbance and effort; bedmaking; methods of keeping proper records for the doctor's information; methods of disposal of excreta and handling of contagious diseases within the home when necessary; preparation of proper diets for the patient; and understanding of public health problems.

It will be seen from this abbreviated list of subjects that besides saving the time of the doctor and nurse, this training gives a calming confidence to the mother or wife. It stimulates an appreciation for, and an interest in medical and community health matters. It creates a health consciousness in the family, a better understanding of the mutual problems of the doctor, the patient and the nurse. There is no glamour, no uniform, no public recognition; only the certificate and the calm self-satisfaction of knowing better how to help loved ones through more intelligent cooperation with the doctor.

In some Home Nursing classes, public health officers have presented their programs; in others, instruction in tuberculosis has been presented by the local Tuberculosis Association. Other available but carefully selected material is presented at times, including moving picture films on nutrition or tuberculosis control. The goal is to reach at least one person in every household in America. Someone has suggested the slogan, "Every Home a Health Center." The advice of the family physician will, no doubt, often be sought before enrollment. With this thought in mind, this brief description of the purpose, the nature and the scope of these classes has been given.

The American Red Cross is trying to give the homemakers of America something which will be permanently helpful, practical and ethical; to assist and to save time for the doctor and the nurse;

to promote personal health consciousness as well as a respect for public health measures; and not the least important, to substitute a feeling of calm and confidence for the helplessness and frustration so frequently experienced when the worried patient suddenly is faced with the conditions of these times.

THE PRESIDENTS' CONFERENCE

Seventeen presidents of state medical societies met in Detroit April 27 and 28 as guests of the Michigan State Medical Society for a Public Relations Conference. The following states were represented: Connecticut, Delaware, Illinois, Indiana, Iowa, Kentucky, Massachusetts, Michigan, Minnesota, Nebraska, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Wisconsin, District of Columbia.

Dr. P. L. Ledwidge, speaker of the Michigan State Medical Society House of Delegates, opened the meeting with the following remarks: "We in Michigan believe that some changes in methods of medical practice and distribution of medical care are inevitable. We believe that these changes should be evolutionary and guided by the medical profession. We believe that this ideal of controlled evolution is not one to be accomplished easily. We believe that powerful forces are at work bent on revolutionary changes that may completely alter or replace the practice of medicine as a private enterprise. We believe that it is time for medicine to stop playing a defensive game and start carrying the ball. When Johnny Mercer wrote his popular song he expressed in these few words, 'Accentuate the positive, eliminate the negative,' a philosophy that long ago should have been adopted by organized medicine in dealing with medical economics and public relations." He stated further that to preserve the traditional methods of practice and obviate compulsory health insurance, with its governmental control and political implications, three things are necessary: (1) We must offer voluntary plans that will give to the nation better physical and economic health than is to be expected from any compulsory plan government may offer. (2) We must sell these voluntary plans to the public. (3) We must sponsor and effectuate the passage of legislation that will put these plans into operation.

Point three was the first item discussed. It was the unanimous opinion that the time seems ripe to attempt this objective. There is enough strength in Congress to guarantee medicine a fair hearing and passage of legislation satisfactory to the medical profession. Dr. E. J. McCormick, a member of the Council on Medical Service and

Public Relations of the American Medical Association, suggested an overall program for the guidance of state medical associations; he urged that such a program emanate from the proper agency in the American Medical Association.

It is an accepted fact that the American Medical Association has not, through any of its agencies, offered Congress a *plan* for improving the distribution of medical care. It has encouraged the states to work out local plans to meet local conditions in the hope that by some strange accident of fate enough plans would be in operation sometime to satisfy the social security group. It has a plan—the American Medical Association has none. A member of Congress has no choice. He may be against such legislation as the Wagner Bill but eventually he must vote for some plan that will provide a proper distribution of medical care. If the American Medical Association does not provide this plan, Senator Wagner and his friends will.

It was suggested that each state set up a "drafting panel." It is not the purpose of this panel to draft legislation, but rather to set down in orderly fashion, for use of those who do the drafting, sound principles and specific recommendations based on our experiences and pertinent to the welfare of the people. Subsequently, representatives of these state panels should meet and develop a correlated program. Resolutions to this end were adopted as follows:

Be It Resolved,

1. That this group expresses its continued loyalty to the American Medical Association;
2. That it is the duty of the various state medical societies to advise the American Medical Association, through its Council on Medical Service and Public Relations, of their wishes in regard to national health legislation;
3. That the presidents of the several states and District of Columbia medical societies, or their representatives, act as a permanent committee immediately to set up drafting panels in each state for this purpose;
4. That states not represented here today be invited and encouraged to join this work;
5. That the President of the Michigan State Medical Society be designated as temporary chairman of this committee to facilitate its activities.

The question of public relations was given much attention. A statement by Dr. H. K. Foster of Indiana impressed me. "We are medicine's public relations men, as far as our individual patients are concerned. If they show interest in medical social and medical economic issues, we should take the time to explain medicine's attitude to them. Show them the stake they hold in the maintenance of the existing system of medical practice."

The Michigan State Medical Society has spent much time, thought, and money to build up its

public relations program. The Michigan Health Council functions much like our Interprofessional Association. It has a large budget, handles press releases, provides speakers for all groups, and in 1944 conducted a public opinion survey. Michigan's best public relations project, however, is its weekly radio program. It has been an outstanding success. It is an up-to-the-minute program with a weekly contest on an hour that ensures a large audience. Opinion of those present favored making this radio program a national program on a wide hook-up.

The Presidents' Conference (representing over seventy-seven million people) has great possibilities. It represents a force *within* the American Medical Association which can and will express the opinions and desires of the rank and file of the medical profession. It may not be the answer, but it most certainly is the nearest approach to what we have been seeking for many years:

R. D. Bernard, M.D., President.

IOWA MEDICAL SERVICE A REALITY

Iowa Medical Service has slowly evolved from a mere idea to a going reality. The necessary forms are being printed, office space has been acquired, and arrangements entered into with the two hospital plans for the sale of our contracts.

Physicians have at all times accepted full responsibility for care of the sick. They now go a step further and provide, by way of our medical plan, a method of equalizing the costs of illness and thus assure adequate treatment for those of moderate and low income.

The inquiries coming to us reveal the deep and growing interest in the success of the plan. Without this interest and wholehearted support by the profession the plan will surely and inevitably fail. An opportunity will soon be afforded every member of the Iowa State Medical Society to enroll as a participating physician. The extent to which they meet this call will be the best evidence of the acceptance and support of our Iowa Medical Service.

Martin I. Olsen, President, Iowa Medical Service

CHEST PHYSICIANS CANCEL MEETING

The American College of Chest Physicians has canceled its annual meeting scheduled to be held in Philadelphia in June, 1945. The Executive Council of the College voted to hold a business meeting of the Board of Regents in Chicago June 17.

The Board of Examiners has announced that the next written examination for Fellowship will be held in Chicago June 16. Candidates for Fellowship in the College who plan to take the examination should contact the Executive Secretary of the American College of Chest Physicians, 505 North Dearborn Street, Chicago 10, Illinois.

President's Page

It will be the object of this short feature each month to discuss State Society activities which are of current interest to the members. Many of the discussions will concern activities of the various committees, especially those dealing with matters of policy both locally and nationally.

The 1945 meeting of the House of Delegates is a matter of history. Much was accomplished. The readjustment of committees to facilitate the ever changing economic conditions is a progressive step. Once each month the committees concerned with current problems will have an opportunity to meet and discuss these problems. This most certainly offers an opportunity for inter-committee cooperation and joint action on any plans suggested.

A President's and a President-Elect's report to the House was authorized. The House is hereby afforded an opportunity to consider their recommendations based on observations during the preceding year. Dr. Hennessy's report published in the May Journal should be read by every member of the Society. It is a keen and appreciative analysis of the Society as an organization by one who has spent years in various offices of the Society. You may not agree with him on every observation. That is beside the point. He gave the House an opportunity to appraise the Society as he saw it.

The medical service plan and the progress made by the men in charge of its organization were approved. There is no doubt in my mind but that the plan is fundamentally sound; that the Board of Directors, under the leadership of Dr. Martin Olsen, will administer it in a satisfactory manner; and that there is an unusual demand for the plan in Iowa. I feel equally certain that the medical profession of Iowa will give it overwhelming support. It is the Iowa answer to a service the people of the state desire from their doctors—owned, operated, and serviced by their family physicians.

R. D. Bernard, M.D.

President, Iowa State Medical Society.

Roster of Iowa Physicians in Military Service

As of May 21, 1945

Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) Lt. Col., A.U.S.
Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.) Capt., A.U.S.

Adams County

Bain, C. L., Corning (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Willett, W. J., Carbon (APO 230, New York, N. Y.) Capt., A.U.S.

Allamakee County

Hogan, P. W., Waukon
Ivens, M. H., Waukon (Miami Beach, Fla.) Capt., A.U.S.
Kiesau, M. P., Postville (APO 513, New York, N. Y.) Major, A.U.S.
Rominger, C. R., Waukon (Camp Claiborne, La.) A.U.S.

Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.) Major, U.S.P.H.S.
Edwards, R. R., Centerville (APO 887 New York, N. Y.) Capt., A.U.S.
Huston, M. D., Centerville (Camp Bowie, Texas) Capt., A.U.S.

Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) Major, A.U.S.

Benton County

Koontz, L. W., Vinton (APO 7, San Francisco, Cal.) Capt., A.U.S.
Senfeld, Sidney, Belle Plaine

Black Hawk County

Bickley, D. W., Waterloo (APO New York, N. Y.) Capt., A.U.S.
Bickley, J. W., Waterloo (APO 956, San Francisco, Cal.) Capt., A.U.S.
Butts, J. H., Waterloo (Galveston, Texas) Comdr., U.S.N.R.
Cooper, C. N., Waterloo (Newport, R. I.) Lt. Comdr., U.S.N.R.
Ericsson, M. G., Cedar Falls (Camp Barkeley, Tex.) Capt., A.U.S.
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) Capt., A.U.S.
Henderson, L. J., Cedar Falls (APO 782, New York, N. Y.) Major, A.U.S.
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) Capt., A.U.S.
Ludwick, A. L., Waterloo (Ablene, Texas) Major, A.U.S.
Marquis, F. M., Waterloo (APO 513, New York, N. Y.) Capt., A.U.S.
O'Keefe, P. T., Waterloo (APO 79, New York, N. Y.) Capt., A.U.S.
Paige, R. T., LaPorte City (Banana River, Fla.) Comdr., U.S.N.R.
Rohlf, E. L., Jr., Waterloo (APO 230, New York, N. Y.) Major, A.U.S.
Seibert, C. W., Waterloo (Colorado Springs, Colo.) Major, A.U.S.
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) Major, A.U.S.
Smith, R. I., Waterloo (Milwaukee, Wis.) Capt., A.U.S.
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) Major, A.U.S.
Trunnell, T. L., Waterloo (Parris Island, S. Car.) Lt. U.S.N.R.

Boone County

Brewster, E. S., Boone (APO 446, New York, N. Y.) Major, A.U.S.
Healy, M. J., Boone (Fort Sill, Okla.) Capt., A.U.S.
Shane, R. S., Pilot Mound (Des Moines, Ia.) Lt. Col., A.U.S.

Bremer County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Rathe, H. W., Waverly (APO 209, New York, N. Y.) Lt. Col., A.U.S.
Shaw, R. E., Waverly (Long Beach, Cal.) 1st Lt., A.U.S.

Buchanan County

Barton, J. C., Independence (APO 314, New York, N. Y.) Lt. Col., A.U.S.
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Leehey, P. J., Independence (APO 244, San Francisco, Cal.) Capt., A.U.S.
Loeck, J. F., Aurora (APO 887, New York, N. Y.) Capt., A.U.S.

Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) Capt., A.U.S.
Brecher, P. W., Storm Lake (Camp Adair, Ore.) Lt. Col., A.U.S.
Hansen, R. R., Storm Lake (Farragut, Idaho) Lt., U.S.N.R.
Mailliard, R. E., Storm Lake (APO 254, New York, N. Y.) Lt. Col., A.U.S.
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) Capt., A.U.S.
Witte, H. J., Marathon (APO 350, New York, N. Y.) Major, A.U.S.

Butler County

Andersen, B. V., Greene (Pensacola, Fla.) Lt., U.S.N.R.
James, R. A., Allison (Mare Island, Cal.) 1st Lt., A.U.S.
Rofls, F. O., Parkersburg (Springfield, Mo.) 1st Lt., A.U.S.

Calhoun County

Grinley, A. V., Rockwell City (APO 350, New York, N. Y.) Capt., A.U.S.
Hobart, F. W., Lake City (APO 562, New York, N. Y.) Capt., A.U.S.

Hobart, F. W., Lake City (Camp Grant, Ill.) Capt., A.U.S.
McVay, M. J., Lake City (Waco, Texas) Capt., A.U.S.
Peek, L. H., Lake City (Camp Carson, Colo.) Capt., A.U.S.
Stevenson, W. W., Rockwell City Lt. Comdr., U.S.N.R.
Weyer, J. J., Lohrville (APO 465, New York, N. Y.) Capt., A.U.S.

Carroll County

Anneberg, A. R., Carroll (APO 70, San Francisco, Cal.) Capt., A.U.S.
Anneberg, W. A., Carroll (APO 367, New York, N. Y.) Capt., A.U.S.
Cochran, J. L., Carroll (Gulfport, Miss.) Lt., U.S.N.R.
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Freedland, Maurice, Coon Rapids
Morrison, J. R., Carroll (APO New York) Major, A.U.S.
Morrison, R. B., Carroll (APO 557, New York, N. Y.) Capt., A.U.S.
Pascoe, P. L., Carroll (Bowman Field, Ky.) Capt., A.U.S.
Scannell, R. C., Carroll (Denver, Colo.) Capt., A.U.S.
Tindall, R. N., Coon Rapids (Hines, Ill.) Major, A.U.S.
Wyatt, M. R., Manning (Stuttgart, Ark.) Capt., A.U.S.

Cass County

Egbert, D. S., Atlantic (APO 218, New York N. Y.) Major, A.U.S.
Ergenbright, W. V., Atlantic (APO 331, San Francisco, Cal.) Capt., A.U.S.
Needles, R. M., Atlantic (APO 131, New York, N. Y.) Capt., A.U.S.
Peterson, M. T., Atlantic (Charleston, S. Car.) Capt., A.U.S.
Schiff, Joseph, Anita (Rochester, Minn.) 1st Lt., A.U.S.

Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.) Lt., U.S.N.R.
Mosher, M. L., West Branch (APO 560, New York, N. Y.) Capt., A.U.S.
O'Neal, H. E., Tipton (Minneapolis, Minn.) Lt. Col., A.U.S.

Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.) Major, A.U.S.
Egloff, W. C., Mason City (APO 17130, New York, N. Y.) Capt., A.U.S.
Flickinger, R. R., Mason City (Memphis, Tenn.) Capt., A.U.S.
Hale, A. E., Dougherty (Atlanta, Ga.) Capt., A.U.S.
Harris, R. H., Mason City (Dyersburg, Tenn.) Capt., A.U.S.
Harrison, G. E., Mason City (APO 365, New York, N. Y.) Col., A.U.S.
Houlahan, J. E., Mason City (APO 838, New Orleans, La.) Capt., A.U.S.
Lannon, J. W., Clear Lake (APO 230, New York, N. Y.) Capt., A.U.S.
Long, D. L., Mason City (APO 520, New York, N. Y.) Capt., A.U.S.
Morgan, P. W., Mason City (Camp Butner, N. Car.) Capt., A.U.S.
Sternhill, Irving, Mason City (Ayer, Mass.) Capt., A.U.S.

Cherokee County

Bullock, G. D., Washta (APO 17583, New York, N. Y.) Capt., A.U.S.
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) Major, A.U.S.
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) Capt., A.U.S.

Chickasaw County

Caulfield, J. D., New Hampton (APO 178, New York, N. Y.) Major, A.U.S.
Murfhey, A. L., Fredericksburg (Ft. Leavenworth, Kan.) Capt., A.U.S.
O'Connor, E. C., New Hampton (Redmond, Ore.) Capt., A.U.S.
Richmond, P. C., New Hampton (APO 88, New York, N. Y.) Major, A.U.S.

Clarke County

Armitage, G. I., Murray (APO 629, New York, N. Y.) Capt., A.U.S.

Clay County

Edington, F. D., Spencer (APO 649, New York, N. Y.) Col., A.U.S.
Jones, C. C., Spencer (Farragut, Idaho) Lt., U.S.N.R.
King, D. H., Spencer (Peterson Field, Colo.) Capt., A.U.S.

Clayton County

Andersen, H. M., Strawberry Point (Camp Crowder, Mo.) Capt., A.U.S.
Glesne, O. G., Monona (Knoxville, Iowa) Capt., A.U.S.
Rhomborg, E. B., Guttenberg (APO 584, New York, N. Y.) Capt., A.U.S.

Clinton County

Amesbury, H. A., Clinton (Vancouver, Wash.) Major, A.U.S.
Burke, J. C., Clinton (Great Bend, Kan.) A.U.S.
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) Capt., A.U.S.
Hill, D. E., Clinton (APO 9787, New York, N. Y.) Capt., A.U.S.
King, R. C., Clinton (Clinton, Iowa) Capt., A.U.S.
Lenaghan, R. T., Clinton (Olathe, Kans.) Lt. Comdr., U.S.N.R.

Norment, J. E., Clinton (San Bruno, Cal.)....Comdr., U.S.N.R.
 Riedesel, E. V., Wheatland (Fort Douglas, Utah)
 Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.)...Capt., A.U.S.
 Snyder, D. C., De Witt (APO 520, New York, N. Y.)...Capt., A.U.S.
 Speigel, I. J., Clinton (Galesburg, Ill.).....Capt., A.U.S.
 Van Epps, E. F., Clinton (APO 9921, New York,
 N. Y.).....Capt., A.U.S.
 Waggoner, C. V., Clinton (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Wells, L. L., Clinton (APO 562, New York, N. Y.)..Capt., A.U.S.

Crawford County

Fee, C. H., Denison (APO 696, New York, N. Y.)..Major, A.U.S.
 Grau, A. H., Denison, (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Maire, E. J., Vail (APO 18085, New York, N. Y.)...Capt., A.U.S.
 Wetrich, M. F., Manilla (APO 986, Seattle, Wash.)..Capt., A.U.S.

Dallas-Guthrie Counties

Butterfield, E. T., Dallas Center (Fort Sheridan,
 Ill.).....1st Lt., A.U.S.
 Byrnes, A. W., Guthrie Center (Fort Custer, Mich.)..Major, A.U.S.
 Fali, C. S., Adel (Fleet PO, San Francisco, Cal.)...Lt. U.S.N.R.
 Margolin, J. M., Perry (APO 5816, New York,
 N. Y.).....Capt., A.U.S.
 McGilvra, R. I., Guthrie Center (Bethesda, Md.)...Lt., U.S.N.R.
 Mullmann, A. J., Adel (APO 565, San Fran-
 cisco, Cal.).....Capt., A.U.S.
 Nicoll, C. A., Panora (APO 339, New York, N. Y.)..Major, A.U.S.
 Osborn, C. R., Dexter (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Todd, D. W., Guthrie Center (APO 2, New York,
 N. Y.).....Capt., A.U.S.
 Wilke, F. A., Woodward.....Capt., A.U.S.

Davis County

Fenton, C. D., Bloomfield (APO 5253, New York,
 N. Y.).....Capt., A.U.S.
 Gilfillan, G. W., Bloomfield (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Decatur County

Gamet, E. E., Lamoni (APO New York, N. Y.)....Major, A.U.S.

Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York,
 N. Y.).....Capt., A.U.S.
 Clark, R. E., Manchester (APO 419, New York, N. Y.)
Capt., A.U.S.

Des Moines County

Eigenfeld, M. L., Burlington (Cleveland, Ohio)...1st Lt., A.U.S.
 Heitzman, P. O., Burlington (Fort Lewis, Wash.)...Capt., A.U.S.
 Jenkins, G. D., Burlington (West Point, N. Y.)...Lt. Col., A.U.S.
 Lohmann, C. J., Burlington (APO 1055, San Fran-
 cisco, Cal.).....Major, A.U.S.
 McKitterick, J. C., Burlington (Hamilton,
 R. I.).....Comdr., U.S.N.R.
 Moerke, R. F., Burlington (APO 565, San Francisco,
 Cal.).....Capt., A.U.S.
 Sage, E. C., Burlington (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Dickinson County

Buchanan, J. J., Milford (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Henning, G. G., Milford (San Antonio, Texas)...Major, A.U.S.
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.)....Capt., A.U.S.
 Rodawig, D. F., Spirit Lake (Topeka, Kan.).....Major, A.U.S.

Dubuque County

Anderson, E. E., Dubuque (Bradley Field, Conn.)...Capt., A.U.S.
 Conzett, D. C., Dubuque (APO 887, New York,
 N. Y.).....Lt. Col., A.U.S.
 Cunningham, J. C., Dubuque (Fairfield, Ohio)...Capt., A.U.S.
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.)
Major, A.U.S.
 Entringer, A. J., Dubuque (APO 41, San Francisco,
 Cal.).....Capt., A.U.S.
 Hall, C. B., Dubuque (Indiantown Gap, Pa.).....Capt., A.U.S.
 Knoll, A. H., Dubuque (San Francisco, Cal.)....Major, A.U.S.
 Langford, W. R., Epworth (Miami Beach, Fla.)...Capt., A.U.S.
 Lavery, H. B., Dubuque (Washington, D. C.)...Lt. Col., A.U.S.
 Leik, D. W., Dubuque (Wichita Falls, Tex.).....Capt., A.U.S.
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.)..Capt., A.U.S.
 Olson, P. F., Dubuque (San Francisco, Cal.)..Lt. Comdr., U.S.N.R.
 Painter, R. C., Dubuque (Salt Lake City, Utah)...Lt., U.S.N.R.
 Paulus, J. W., Dubuque (APO 115, New York,
 N. Y.).....Capt., A.U.S.
 Plankers, A. G., Dubuque (APO 464 New York,
 N. Y.).....Major, A.U.S.
 Quinn, E. P., Dubuque (Brooklyn, N. Y.).....Major, A.U.S.
 Scharle, Theodore, Dubuque (APO 17570, New York,
 N. Y.).....Capt., A.U.S.
 Schueller, C. J., Dubuque (APO 758, New York,
 N. Y.).....1st Lt., A.U.S.
 Sharpe, D. C., Dubuque (APO 562, New York,
 N. Y.).....Major, A.U.S.
 Smith, C. W., Dubuque (Shoemaker, Cal.).....Lt., U.S.N.R.
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.)...Lt. Col., A.U.S.
 Straub, J. J., Dubuque (Bethesda, Md.)....Lt. Comdr., U.S.N.R.
 Ward, D. F., Dubuque (Great Lakes, Ill.)....Lt. Comdr., U.S.N.R.

Enmet County

Clark, J. P., Estherville (APO New York, N. Y.)..Major, A.U.S.
 Collins, L. E., Estherville (APO 247, San Fran-
 cisco, Cal.).....1st Lt., A.U.S.
 Miller, O. H., Estherville (Seattle, Wash.)..Lt. Comdr., U.S.N.R.

Fayette County

Gallagher, J. P., Oelwein (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Henderson, W. B., Oelwein (St. Louis, Mo.)....Lt. Col., A.U.S.
 Sulzbach, J. F., Oelwein
 Walsh, W. E., Hawkeye (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Floyd County

Baltzell, W. C., Charles City (APO 2, New York,
 N. Y.).....Major, A.U.S.
 Flater, N. C., Floyd (APO 350, New York, N. Y.)..Capt., A.U.S.
 Knight, R. A., Rockford (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Mackie, D. G., Charles City (APO 215, New York,
 N. Y.).....Capt., A.U.S.
 Miner, J. B., Jr., Charles City (San Diego, Cal.)...Lt., U.S.N.R.
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.)
Capt., A.U.S.

Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) 1st Lt., A.U.S.
 Hedgecock, L. E., Hampton (Camp Lejeune,
 N. Car.).....Lt. Comdr., U.S.N.R.
 Randall, W. L., Hampton (Oceanside, Cal.).....Lt., U.S.N.R.
 Walton, S. G., Hampton (APO New York, N. Y.)...Capt., A.U.S.

Fremont County

Kerr, W. H., Hamburg (APO 926, San Francisco,
 Cal.).....Capt., A.U.S.
 Marrs, W. D., Tabor (Ardmore, Okla.).....Capt., A.U.S.
 Powell, R. A., Farragut (Fleet PO, San Fran-
 cisco, Cal.).....Lt. Comdr., U.S.N.R.
 Wanamaker, A. R., Hamburg (APO 939, Seattle,
 Wash.).....Capt., A.U.S.

Greene County

Cartwright, F. P., Grand Junction (APO 511, New York,
 N. Y.).....Capt., A.U.S.
 Castles, W. A., Rippey (APO 958, San Francisco, Cal.)
Major, A.U.S.
 Hanson, L. C., Jefferson (APO 728, New York, N. Y.)
Capt., A.U.S.
 Jongewaard, A. J., Jefferson (Fleet PO, San
 Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Limburg, J. I., Jr., Jefferson (APO 927, San Francisco,
 Cal.).....Major, A.U.S.
 Lohr, P. E., Churdan (Cleveland, Ohio).....Lt., U.S.N.R.

Grundy County

Cullison, R. M., Dike (Fort Howard, Md.).....Major, A.U.S.
 Rose, J. E., Grundy Center (Fleet PO, New York,
 N. Y.).....Lt. Comdr., U.S.N.R.

Hamilton County

Buxton, O. C., Webster City (APO 407, New York,
 N. Y.).....Capt., A.U.S.
 Howar, B. F., Jewell (APO 514, New York, N. Y.)..Major, A.U.S.
 James, D. W., Kamrar (APO 464, New York, N. Y.)
Capt., A.U.S.
 Lewis, W. B., Webster City (APO 383, New York,
 N. Y.).....Major, A.U.S.
 Mooney, F. P., Jewell (London, England).....Capt., R.A.M.C.
 Paschal, G. A., Williams (Camp Crowder, Mo.)...Capt., A.U.S.
 Patterson, R. A., Webster City (San Diego,
 Cal.).....Lt. Comdr., U.S.N.R.
 Ptaeck, J. L., Webster City (APO 140, New York,
 N. Y.).....Capt., A.U.S.
 Schrader, M. A., Webster City (Topeka, Kan.)...1st Lt., A.U.S.
 Thompson, E. D., Webster City (Biloxi, Miss.)...Capt., A.U.S.

Hancock-Winnebag County

Dulmes, A. H., Klemme (APO 782, New York,
 N. Y.).....Capt., A.U.S.
 Eller, L. W., Kanawha (APO 302, New York,
 N. Y.).....Capt., A.U.S.
 Irish, T. J., Forest City (Fleet PO, San Fran-
 cisco, Cal.).....Lt. Comdr., U.S.N.R.
 Shaw, D. F., Britt (APO 246, Unit 2, San Francisco,
 Cal.).....Major, A.U.S.
 Thomas, C. W., Forest City (APO 519, New York,
 N. Y.).....Major, A.U.S.

Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.)...Lt., U.S.N.R.
 Houlihan, F. W., Ackley (APO 860, New York,
 N. Y.).....1st Lt., A.U.S.
 Jansonius, J. W., Eldora (APO 4834, New York,
 N. Y.).....Capt., A.U.S.
 Johnson, R. J., Iowa Falls (APO 514, New York,
 N. Y.).....Capt., A.U.S.
 Johnson, W. A., Alden (Orlando, Fla.).....Capt., A.U.S.
 Shurts, J. J., Eldora (Camp Roberts, Cal.)...1st Lt., A.U.S.
 Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Todd, V. S., Eldora (APO 770, San Francisco, Cal.)..Capt., A.U.S.

Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Ord, Cal.)...Capt., A.U.S.
 Burbidge, G. E., Logan (APO 511, New York,
 N. Y.).....Major, A.U.S.
 Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.)..Capt., A.U.S.
 Heise, C. A., Jr., Missouri Valley (Fleet PO, San
 Francisco, Cal.).....Lt., U.S.N.R.
 Tamisiea, F. X., Missouri Valley (APO 562, New York,
 N. Y.).....Capt., A.U.S.

Henry County

Brown, W. B., Mount Pleasant (APO 571, New York,
 N. Y.).....Major, A.U.S.

Dwankowski, Carl, Mt. Pleasant (APO 511, New York, N. Y.).....Major, A.U.S.
 Gloeckler, B. B., Mount Pleasant (APO 9768, New York, N. Y.).....Capt., A.U.S.
 Hartley, B. D., Mount Pleasant (APO 17180, New York, N. Y.).....Capt., A.U.S.
 Megorden, W. H., Mount Pleasant (Ogden, Utah).....Capt., A.U.S.
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.).....Major, A.U.S.

Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Nierling, P. A., Cresco (APO 43, San Francisco, Cal.).....Capt., A.U.S.

Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.).....Capt., A.U.S.
 Coddington, J. H., Humboldt (Oklahoma City, Okla.).....Capt., A.U.S.

Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.).....Capt., A.U.S.
 Martin, J. W., Holstein (Albany, Ga.).....Capt., A.U.S.

Iowa County

Geiger, U. S., North English (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 McDaniel, J. D., Marengo (APO 1010, San Francisco, Cal.).....Capt., A.U.S.
 Miller, D. F., Williamsburg (San Diego, Cal.).....Lt., U.S.N.R.

Jackson County

Bausch, R. G., Bellevue (APO 251, New York, N. Y.).....Capt., A.U.S.
 Skelley, P. B., Jr., Maquoketa (Ft. Lewis, Wash.).....1st Lt., A.U.S.
 Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.).....Major, A.U.S.

Jasper County

Doake, Clarke, Newton.....1st Lt., A.U.S.
 Minkel, R. M., Newton (APO New York, N. Y.).....Lt. Col., A.U.S.
 Ritchey, S. J., Newton.....Lt. Col., A.U.S.

Jefferson County

Castell, J. W., Fairfield (APO 9907, New York, N. Y.).....Capt., A.U.S.
 Frey, Harry, Fairfield (Norfolk, Va.).....Lt. Comdr., U.S.N.R.
 Gittler, Ludwig, Fairfield.....Lt. Col., A.U.S.
 Graber, H. E., Fairfield (APO 18642, San Francisco, Cal.).....Major, A.U.S.
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

Jones County

Agnew, J. W., Iowa City (APO 17604, New York, N. Y.).....Capt., A.U.S.
 Albert, S. M., Iowa City (APO 9622, New York, N. Y.).....1st Lt., A.U.S.
 Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.
 Anderson, E. N., Iowa City (APO 647, New York, N. Y.).....Major, A.U.S.
 Boyd, E. J., Iowa City (APO 140, New York, N. Y.).....Capt., A.U.S.
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco, Cal.).....Lt. Col., A.U.S.
 Bunge, R. G., Iowa City (Orlando, Fla.).....Capt., A.U.S.
 Callahan, G. D., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Coburn, F. E., Iowa City (Toronto, Canada).....Capt., R.C.A.
 Cooper, W. K., Iowa City (Mitchell Field, N. Y.).....Capt., A.U.S.
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.).....Capt., A.U.S.
 Diddle, A. W., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Dorner, R. A., Iowa City (APO 230, New York, N. Y.).....Capt., A.U.S.
 Elmquist, H. S., Iowa City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 Emmons, M. B., Iowa City (Camp Bowie, Texas).....Capt., A.U.S.
 Field, Grace E., Iowa City (APO 394, New York, N. Y.).....Major, U.S.P.H.S.

Flax, Ellis, Iowa City (APO 5833, New York, N. Y.).....1st Lt., A.U.S.
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.
 Fourn, A. S., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.
 Francis, N. L., Iowa City (Annapolis, Md.).....Lt. (jg), U.S.N.R.
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.
 Garlinghouse, R. O., Iowa City (Ft. Riley, Kan.).....Lt. Col., A.U.S.
 Hardin, R. C., Iowa City (APO 508, New York, N. Y.).....Major, A.U.S.
 Hartung, Walker, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.
 Hess, A. L., Iowa City (APO 462, New York, N. Y.).....Major, A.U.S.
 Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 January, L. E., Iowa City (Pyote, Texas).....Major, A.U.S.
 Kanealy, J. F., Iowa City (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.
 Keislar, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.

Laubscher, J. H., Iowa City (Ft. Benning, Ga.).....1st Lt., A.U.S.
 Longwell, F. H., Iowa City (Daytona, Fla.).....Major, A.U.S.
 Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.
 Nagyfy, S. F., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.
 Newman, R. W., Iowa City (Jacksonville, Fla.).....Lt. Comdr., U.S.N.R.
 Parkin, G. L., Iowa City (Mountain Home, Idaho).....1st Lt., A.U.S.
 Paulus, E. W., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.
 Petersen, V. W., Iowa City (APO 689, New York, N. Y.).....Col., A.U.S.

Sells, R. L., Jr., Iowa City (Palmdale, Cal.).....Capt., A.U.S.
 Smith, H. F., Iowa City (New York, N. Y.).....Lt. Comdr., U.S.N.R.
 Springer, E. W., Iowa City (APO 678, New York, N. Y.).....Capt., A.U.S.
 Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.
 Staggs, W. A., Iowa City.....Major, A.U.S.
 Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.
 Stump, R. B., Iowa City (Denver, Colo.).....Capt., A.U.S.
 Titus, E. L., Iowa City (Belmont, Mass.).....Col., A.U.S.
 Trapasso, T. J., Iowa City (APO 520, New York, N. Y.).....Capt., A.U.S.
 Trussell, R. E., Iowa City (APO 5467, San Francisco, Cal.).....Capt., A.U.S.
 Voelker, C. A., Jr., Iowa City (Eglin Field, Fla.).....Capt., A.U.S.
 Ward, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Weatherly, H. E., Iowa City (APO 72, San Francisco, Cal.).....Capt., A.U.S.
 Wollmann, W. W., Iowa City (Staunton, Va.).....1st Lt., A.U.S.
 Ziffren, S. E., Iowa City (Springfield, Mo.).....1st Lt., A.U.S.

Junior Members

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.
 Black, N. M., Iowa City (McChord Field, Wash.).....1st Lt., A.U.S.
 Blair, J. D., Iowa City (APO San Francisco, Cal.).....Major, A.U.S.
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.
 Brintnall, E. S., Iowa City (Colorado Springs, Colo.).....1st Lt., A.U.S.
 Burr, S. P., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.
 Carney, R. G., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Connole, J. F., Iowa City (Camp Bowie, Texas).....1st Lt., A.U.S.
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.).....1st Lt., A.U.S.
 Coulson, F. H., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
 Decker, C. E., Iowa City (Oklahoma City, Okla.).....1st Lt., A.U.S.
 Donnelly, B. A., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.
 Ehrenhaft, J. L., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.
 Englerth, F. L., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.
 Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.
 Glassman, A. L., Iowa City (Palm Springs, Cal.).....1st Lt., A.U.S.
 Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.
 Harms, G. E., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Hendricks, A. B., Iowa City (Klamath Falls, Ore.).....Lt., U.S.N.
 Hovis, Wm., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.
 Jacobs, C. A., Iowa City (APO New York, N. Y.).....Major, A.U.S.
 Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.).....1st Lt., A.U.S.
 Keil, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.
 Kelberg, M. R., Iowa City (Alameda, Cal.).....Lt., U.S.N.R.
 Keleher, M. F., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.
 Keohene, G. F., Iowa City (Camp Grant, Ill.).....Capt., A.U.S.
 Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.
 Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.
 McCann, J. P., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 McQuiston, W. O., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.
 Moen, B. H., Iowa City.....A.U.S.
 Moon, R. E., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.
 Odell, Lester, Iowa City (Pensacola, Fla.).....Lt. (jg), U.S.N.R.
 Phillips, R. M., Iowa City (San Francisco, Cal.).....1st Lt., A.U.S.
 Pulliam, R. L., Iowa City (APO 350, New York, N. Y.).....Major, A.U.S.
 Randall, C. G., Iowa City.....A.U.S.
 Randall, R. G., Iowa City (Waterloo, Iowa).....Capt., A.U.S.
 Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.
 Russin, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.
 Saar, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
 Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.
 Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Shand, J. A., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Shapiro, S. I., Iowa City.....A.U.S.
 Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.
 Skewis, J. E., Iowa City (Corona, Cal.).....Lt., U.S.N.R.
 Skouge, O. T., Iowa City.....A.U.S.
 Towle, R. A., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.
 Waters, V. G., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.
 Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.
 Williams, L. A., Iowa City (Treasure Island, Cal.).....1st Lt., A.U.S.
 Willumsen, H. C., Iowa City (Denver, Colo.).....Capt., A.U.S.
 Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.
 Yetter, W. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
 Zahrt, N. E., Iowa City (Keesler Field, Miss.).....Capt., A.U.S.
 Zimmerman, H. A., Iowa City (Santa Ana, Cal.).....1st Lt., A.U.S.

Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.).....Capt., A.U.S.
 Doyle, J. L., Sigourney (Camp Barkeley, Texas).....A.U.S.
 Engelmman, A. T., What Cheer (Camp Polk, La.).....Capt., A.U.S.
 Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.
 Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.

Kossuth County

Clapsaddle, D. W., Burt (Denver, Colo.).....Capt., A.U.S.
 Corbin, R. L., Luverne (Des Moines, Iowa).....Capt., A.U.S.
 Kenefick, J. N., Algona (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Williams, R. L., Lakota (Iowa City, Iowa).....Lt. Comdr., U.S.N.R.

Lee County

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.
 Cleary, H. G., Fort Madison (Ft. Benning, Ga.).....Capt., A.U.S.
 Cooper, R. E., Keokuk (APO 565, San Francisco, Cal.) Capt., A.U.S.
 Johnstone, A. A., Keokuk (APO 942, Seattle, Wash.) Col., A.U.S.
 McKee, T. L., Keokuk (Miami Beach, Fla.).....Major, A.U.S.
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) Major, A.U.S.
 Rankin, J. R., Keokuk (Memphis, Tenn.).....Lt., U.S.N.R.
 Richmond, A. C., Fort Madison (San Bruno,
 Cal.).....Lt. Comdr., U.S.N.R.
 Steffey, F. L., Keokuk (Fort Snelling, Minn.)
 Van Werden, B. D., Keokuk (APO 4777, New York,
 N. Y.).....Capt., A.U.S.
 Younan, Thomas, Ft. Madison (APO 758, New York,
 N. Y.).....Capt., A.U.S.

Linn County

Andre, G. R., Lisbon (APO 90, New York, N. Y.).....Lt. Col., A.U.S.
 Berney, P. W., Cedar Rapids (APO 314, New York,
 N. Y.).....Major, A.U.S.
 Block, W. M., Cedar Rapids (APO 926, San Francisco,
 Cal.).....Capt., A.U.S.
 Chapman, R. M., Cedar Rapids (Chicago, Ill.).....Capt., A.U.S.
 Coughlan, V. H., Coggon (Fort Snelling, Minn.).....A.U.S.
 Courter, W. O., Springville (APO 464, New York,
 N. Y.).....Major, A.U.S.
 Downing, J. S., Cedar Rapids (APO 565, San Francisco,
 Cal.).....Lt. Col., A.U.S.
 Dunn, F. C., Cedar Rapids (Winfield, Kan.).....Major, A.U.S.
 Gurnhart, Merriam, Springville (APO 513, New York,
 N. Y.).....Major, A.U.S.
 Gerstman, Herbert, Marion (APO 862, New York,
 N. Y.).....Capt., A.U.S.
 Halpin, L. J., Cedar Rapids (APO 957, San Francisco,
 Cal.).....Major, A.U.S.
 Hecker, J. T., Cedar Rapids (APO 758, New York,
 N. Y.).....Capt., A.U.S.
 Jirsa, H. O., Cedar Rapids (APO 871, New York,
 N. Y.).....Lt. Col., A.U.S.
 Keith, J. J., Marion (Menlo Park, Cal.).....Major, A.U.S.
 Kieck, E. G., Cedar Rapids (San Diego, Cal.) Lt. Comdr., U.S.N.R.
 Kruckenberg, W. G., Mount Vernon (Fleet PO, San
 Francisco, Cal.).....Lt., U.S.N.R.
 Leedham, C. L., Springville (Camp Campbell, Ky.).....Col., A.U.S.
 Locher, R. C., Cedar Rapids (APO 18085, New York,
 N. Y.).....Major, A.U.S.
 †MacDougal, R. F., Cedar Rapids (APO 9057, New York,
 N. Y.).....Capt., A.U.S.
 McConkie, E. B., Cedar Rapids (Hines, Ill.).....Major, A.U.S.
 McQuiston, J. S., Cedar Rapids (Fort Warren,
 Wyo.).....Lt. Col., A.U.S.
 Meffert, C. B., Cedar Rapids (APO 403, New York,
 N. Y.).....Lt. Col., A.U.S.
 Murray, E. S., Cedar Rapids (APO 512, New York,
 N. Y.).....Lt. Col., A.U.S.
 Netolicky, R. Y., Cedar Rapids (Hawthorne,
 Nev.).....Lt. Comdr., U.S.N.R.
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo,
 Cal.).....1st Lt., A.U.S.
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.).....Major, A.U.S.
 Parke, John, Cedar Rapids.....Major, A.U.S.
 Proctor, R. D., Cedar Rapids (Fleet PO, San Fran-
 cisco, Cal.).....Comdr., U.S.N.R.
 Redmond, J. J., Cedar Rapids (APO 813, New York,
 N. Y.).....Major, A.U.S.
 Rieniets, J. H., Cedar Rapids (Charleston, S.
 Car.).....Lt. Comdr., U.S.N.R.
 Sedlack, L. B., Cedar Rapids (APO 244, San Francisco,
 Cal.).....Lt. Col., A.U.S.
 Smrha, J. A., Cedar Rapids (Topeka, Kan.).....Capt., A.U.S.
 Stansbury, J. R., Cedar Rapids (Fort Lewis,
 Wash.).....Capt., A.U.S.
 Sulek, A. E., Cedar Rapids (APO 244, San Fran-
 cisco, Cal.).....Major, A.U.S.
 Woodhouse, K. W., Cedar Rapids (APO 519, New York,
 N. Y.).....Lt. Col., A.U.S.
 Wray, R. M., Cedar Rapids (APO 958, San Francisco,
 Cal.).....Major, A.U.S.
 Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.)
Lt. Comdr., U.S.N.

Louisa County

DeYarman, K. T., Morning Sun (San Antonio,
 Texas).....Capt., A.U.S.
 Tandy, R. W., Morning Sun (Oakland,
 Cal.).....Lt. Comdr., U.S.N.R.

Lucas County

Lister, K. E., Chariton (Fort Snelling, Minn.).....A.U.S.

Lyon County

Cook, S. H., Rock Rapids (Lordsburg, N. Mex.).....Major, A.U.S.
 †Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Offag 64,
 Germany).....Capt., A.U.S.
 Moriarty, J. F., Rock Rapids (APO 464, New York,
 N. Y.).....Capt., A.U.S.

Madison County

Boden, H. N., Truro (Fresno, Cal.)
 Chesnut, P. F., Winterset (Camp Gruber, Okla.)...Capt., A.U.S.
 Veltman, J. F., Winterset (APO 957, San Francisco,
 Cal.).....Capt., A.U.S.
 Wicks, R. L., Winterset (APO 204, New York, N. Y.)
Lt. Col., A.U.S.

Mahaska County

Bennett, G. W., Oskaloosa (APO 9641, San Francisco,
 Cal.).....Major, A.U.S.
 Bos, H. C., Oskaloosa (APO 758, New York,
 N. Y.).....Major, A.U.S.
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Clark, G. H., Oskaloosa (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Gillett, R. M., Oskaloosa (Fleet PO, San Francisco,
 Cal.).....Capt., U.S.N.
 Greenlee, M. R., Oskaloosa (Port Hueneme,
 Cal.).....Lt. Comdr., U. S.N.R.
 Hibbs, R. E., Oskaloosa.....Capt., A.U.S.
 Keohen, G. F., Oskaloosa (Washington, D. C.).....Major, A.U.S.
 Lemon, K. M., Oskaloosa (APO 637, New York,
 N. Y.).....Capt., A.U.S.
 Reiley, R. E., Oskaloosa (APO 502, San Francisco,
 Cal.).....Major, A.U.S.
 Shurts, J. J., Oskaloosa (Fort Mason, Cal.).....Capt., A.U.S.
 Zager, L. L., Oskaloosa (APO 436, New York,
 N. Y.).....Capt., A.U.S.

Marion County

Elliott, V. J., Knoxville (APO 558, New York,
 N. Y.).....Major, A.U.S.
 Mater, D. A., Knoxville (Lincoln, Neb.).....Major, A.U.S.
 Ralston, F. P., Knoxville (Indio, Cal.).....Capt., A.U.S.
 Schiek, C. M., Knoxville.....Lt. Comdr., U.S.N.R.
 Schroeder, M. C., Pella (Camp Livingston, La.)...Capt., A.U.S.
 Williams, D. B., Knoxville.....Capt., A.U.S.

Marshall County

Carpenter, R. C., Marshalltown (APO 678 New York,
 N. Y.).....Capt., A.U.S.
 Marble, E. J., Marshalltown (Fleet PO, Can Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Marble, W. P., Marshalltown (Colorado Springs,
 Colo.).....Major, A.U.S.
 Meyer, M. G., Marshalltown (APO 513, New York,
 N. Y.).....Major, A.U.S.
 Noonan, J. J., Marshalltown (Fort Jackson,
 S. Car.).....Lt. Col., A.U.S.
 Phelps, R. E., State Center (APO 7, San Francisco,
 Cal.).....Capt., A.U.S.
 Sinning, J. E., Melbourne (Rochester, Minn.).....Capt., A.U.S.
 Smith, E. M., State Center (APO 520, New York,
 N. Y.).....Lt. Col., A.U.S.
 Stegman, J. J., Marshalltown (APO 520, New York,
 N. Y.).....Major, A.U.S.
 Wells, R. C., Marshalltown (Gowen Field, Idaho)....Capt., A.U.S.
 Wolfe, O. D., Marshalltown (APO 937, Seattle
 Wash.).....Capt., A.U.S.
 Wolfe, R. M., Marshalltown (Mirimar, Cal.).....Lt., U.S.N.R.

Mills County

DeYoung, W. A., Glenwood (APO 228, New York,
 N. Y.).....Capt., A.U.S.
 Kuitert, J. H., Glenwood (St. Cloud, Minn.).....Major, A.U.S.
 Magaret, E. C., Glenwood (APO 973, Minneapolis,
 Minn.).....Capt., A.U.S.
 Shonka, T. E., Malvern (APO 403, New York,
 N. Y.).....Capt., A.U.S.

Mitchell County

Culbertson, R. A., St. Ansgar (APO 331, San
 Francisco, Cal.).....Lt. Col., A.U.S.
 Moore, E. E., Osage (APO 591, New York, N. Y.) Major, A.U.S.
 Owen, W. E., Osage (Fleet PO, San Francisco, Cal.)
Lt. (jg), U.S.N.R.
 Walker, T. G., Riceville (Fleet PO, New York,
 N. Y.).....Lt., U.S.N.R.

Monona County

Almer, L. E., Moorhead (Fort Knox, Ky.).....Capt., A.U.S.
 Anderson, S. N., Onawa (Great Lakes, Ill.).....Lt., U.S.N.R.
 Ganzhorn, H. L., Mapleton (APO 72, San Francisco,
 Cal.).....Capt., A.U.S.
 Gaukel, L. A., Onawa (Fort Riley, Kan.).....Capt., A.U.S.
 †Harlan, M. E., Onawa (Fleet PO, San Francisco,
 Cal.).....Lt. (jg), U.S.N.R.
 Stauch, M. O., Whiting (Fort Lewis, Wash.).....Major, A.U.S.
 Wainwright, M. T., Mapleton (Hines, Ill.).....Capt., A.U.S.
 Wolpert, P. L., Onawa (Camp Atterbury, Ind.).....Capt., A.U.S.

Mourie County

Gilliland, C. H., Albia (Fleet PO, San Francisco, Cal.) Lt., U.S.N.
 Heilmann, V. R., Albia (Camp Maxey, Texas).....Capt., A.U.S.
 Richter, H. J., Albia (Waco, Texas).....Major, A.U.S.
 Smith, R. A., Albia (New Cumberland, Pa.).....Capt., A.U.S.

Montgomery County

Bastron, H. C., Red Oak (APO 951, San Francisco,
 Cal.).....Major, A.U.S.
 Hansen, F. A., Red Oak (Clarksville, Ark.).....Lt., U.S.N.R.
 Nelson, C. C., Red Oak (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Panzer, E. J. C., Stanton (Fleet PO, San Francisco,
 Cal.).....Lt. (jg), U.S.N.R.
 Rost, G. S., Red Oak (Halstead, Kan.).....Capt., A.U.S.
 Sorensen, E. M., Red Oak (Jefferson Barracks,
 Mo.).....Capt., A.U.S.

Muscatine County

Ady, A. E., West Liberty (Beaufort, S. Car.)...Comdr., U.S.N.R.
 Asthalter, R. W., Muscatine (Fort Meade, Md.)...1st Lt., A.U.S.
 Carlson, E. H., Muscatine (Louisville, Ky.)...Major, A.U.S.
 Goad, R. R., Muscatine (Fleet PO, San Francisco, Cal.)...Comdr., U.S.N.R.
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) Major, A.U.S.
 Lindley, E. L., Muscatine (APO 6, San Francisco, Cal.)...Capt., A.U.S.
 Muhs, E. O., Muscatine (APO 578, New York, N. Y.)...Major, A.U.S.
 Norem, Walter, Muscatine (APO, Miami, Fla.)...Capt., A.U.S.
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.)...Capt., A.U.S.
 Sywassink, G. A., Muscatine (APO 488-Y Forces, New York, N. Y.)...Lt. Col., A.U.S.
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.)...Lt. Col., A.U.S.

O'Brien County

Getty, E. B., Primghar (APO 153, New York, N. Y.)...Capt., A.U.S.
 Hayne, W. W., Paullina (APO 638, New York, N. Y.)...Capt., A.U.S.
 Moen, S. T., Hartley (APO 689, New York, N. Y.)...Lt. Col., A.U.S.
 Myers, K. W., Sheldon (APO 559, New York, N. Y.)...Capt., A.U.S.

Osceola County

Kuntz, G. S., Sibley (APO 34, New York, N. Y.)...Capt., A.U.S.

Page County

Barnes, C. A., Shenandoah (APO New York, N. Y.)...Capt., A.U.S.
 Bauer, Frank, Shenandoah (APO New York, N. Y.)...A.U.S.
 Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.)...Capt., A.U.S.
 Bossingham, E. N., Clarinda (Fort Ord, Cal.)...Major, A.U.S.
 Brush, Frederick, Shenandoah (APO New York, N. Y.)...A.U.S.
 Bunch, H. McK., Shenandoah (San Diego, Cal.)...Lt. Comdr., U.S.N.R.
 Burdick, F. D., Shenandoah (Denver, Colo.)...Capt., A.U.S.
 Burnett, F. K., Clarinda (APO 777, New York, N. Y.)...Major, A.U.S.
 Rausch, G. R., Clarinda (Sioux City, Iowa)....Capt., A.U.S.
 Savage, L. W., Shenandoah (Fort Meade, Md.)...1st Lt., A.U.S.
 Schwidde, Tilford, Shenandoah (APO New York, N. Y.)...A.U.S.

Palo Alto County

Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.

Plymouth County

Bowers, C. V., LeMars (APO New York, N. Y.)...1st Lt., A.U.S.
 Fisch, R. J., LeMars (Denver, Colo.)...Capt., A.U.S.
 Foss, R. H., Remsen (Homestead, Fla.)...Capt., A.U.S.
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.)...Lt. Col., A.U.S.

Pocahontas County

Blair, F. L., Jr., Fonda (San Antonio, Texas)....Lt., U.S.N.R.
 Herrick, T. G., Gilmore City (APO 9875, New York, N. Y.)...Capt., A.U.S.
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.)...Capt., A.U.S.
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.)...Capt., A.U.S.
 Patterson, A. W., Fonda (Des Moines, Iowa)....Capt., A.U.S.

Polk County

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Anderson, N. B., Des Moines (APO 667, New York, N. Y.)...Col., A.U.S.
 Angell, C. A., Des Moines (APO 408, New York, N. Y.)...Capt., A.U.S.
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.)...Lt. Col., A.U.S.
 Barner, J. L., Des Moines (Atlanta, Ga.)...Major, A.U.S.
 Barnes, B. C., Des Moines (APO 4294, San Francisco, Cal.)...Major, A.U.S.
 Bates, M. T., Des Moines (Corona, Cal.)...Lt. Comdr., U.S.N.R.
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 Bond, T. A., Des Moines (Shoemaker, Cal.)...Lt., U.S.N.R.
 Bone, H. C., Des Moines (Arlington, Cal.)...Major, A.U.S.
 Brown, A. W., Des Moines (APO 5934, New York, N. Y.)...Capt., A.U.S.
 Bruner, J. M., Des Moines (El Paso, Texas)....Major, A.U.S.
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 Burgeson, F. M., Des Moines...Capt., A.U.S.
 Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada)....Flight Lt., R.C.A.F.
 Chambers, J. W., Des Moines (APO 667, New York, N. Y.)...Capt., A.U.S.
 Chase, W. B., Jr., Des Moines...Lt., U.S.N.R.
 Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.)...Capt., A.U.S.
 Connell, J. R., Des Moines (APO 507, New York, N. Y.)...Major, A.U.S.
 Corn, H. H., Des Moines (Camp Beale, Cal.)...Capt., A.U.S.
 Coughlan, D. W., Des Moines (APO 689, New York, N. Y.)...Major, A.U.S.
 Crowley, D. F., Jr., Des Moines (Manchester, N. H.)...Major, A.U.S.
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.)...Capt., A.U.S.
 DeCicco, Ralph, Des Moines (APO 952, San Francisco, Cal.)...Capt., A.U.S.
 Decker, H. G., Des Moines (Long Beach, Cal.)...Lt. Comdr., U.S.N.R.

Downing, A. H., Des Moines (Ft. Snelling, Minn.)...1st Lt., A.U.S.
 Dushkin, M. A., Des Moines (APO 689, New York, N. Y.)...Lt. Col., A.U.S.
 Elliott, O. A., Des Moines (Pecos, Texas)....Capt., A.U.S.
 Ellis, H. G., Des Moines (APO 710, San Francisco, Cal.)...Capt., A.U.S.
 Ervin, L. J., Des Moines (Victoria, Texas)....Lt. Col., A.U.S.
 Fleck, W. L., Des Moines (Ft. Howard, Md.)...Lt. Col., A.U.S.
 Fried, David, Des Moines (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 Fracasse, John, Des Moines...1st Lt., A.U.S.
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Gerschek, E. W., Des Moines
 Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.)...Major, A.U.S.
 Glomset, D. A., Des Moines (APO 152, New York, N. Y.)...Capt., A.U.S.
 Goldberg, Louie, Des Moines (APO 926, San Francisco, Cal.)...Capt., A.U.S.
 Gordon, A. M., Des Moines (APO 464, New York, N. Y.)...Capt., A.U.S.
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Greek, L. M., Des Moines (APO 512, New York, N. Y.)...Capt., A.U.S.
 Gurau, H. H., Des Moines (Austin, Texas)....Capt., A.U.S.
 Haines, D. J., Des Moines (APO 453, San Francisco, Cal.)...Capt., A.U.S.
 Harris, D. D., Des Moines (Gulfport, Miss.)...Lt. Comdr., U.S.N.R.
 Harris, H. L., Des Moines (Salina, Kan.)...1st Lt., A.U.S.
 Hess, John, Jr., Des Moines...1st Lt., A.U.S.
 James, A. D., Des Moines (Fort Eustis, Va.)...Comdr., U.S.N.R.
 Johnston, C. H., Des Moines (San Francisco, Cal.)...Lt. Col., A.U.S.
 Kast, D. H., Des Moines (Fort Stevens, Ore.)...Capt., A.U.S.
 Kelley, E. J., Des Moines (Columbus, Ohio)...Lt. Comdr., U.S.N.R.
 Kirch, W. A. W., Des Moines (Astoria, Ore.)...Lt. Comdr., U.S.N.R.
 Klockslem, H. L., Des Moines (APO New York, N. Y.)...Capt., A.U.S.
 Kottke, E. E., Des Moines (Temple, Texas)....Capt., A.U.S.
 Landis, S. N., Des Moines (West Palm Beach, Fla.)...1st Lt., A.U.S.
 La Tona, Salvatore, Des Moines...1st Lt., A.U.S.
 Lederman, James, Des Moines...1st Lt., R.C.A.
 Lehman, E. W., Des Moines (APO 565, San Francisco, Cal.)...Major, A.U.S.
 Losh, C. W., Jr., Des Moines (APO 209, New York, N. Y.)...Capt., A.U.S.
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Maloney, P. J., Des Moines (Fort Lewis, Wash.)...1st Lt., A.U.S.
 Marquis, G. S., Des Moines (Brooklyn, N. Y.)...Lt. Comdr., U.S.N.R.
 Martin, L. E., Des Moines (Helena, Ark.)...1st Lt., A.U.S.
 Matheson, J. H., Des Moines (San Leandro, Cal.)...Lt. Comdr., U.S.N.R.
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.)...Capt., A.U.S.
 McCoy, H. J., Des Moines (Iowa City, Iowa)....Comdr., U.S.N.R.
 McDonald, D. J., Des Moines (APO 339, New York, N. Y.)...Major, A.U.S.
 McNamee, J. H., Des Moines (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Mencher, E. W., Des Moines...1st Lt., A.U.S.
 Merkel, B. M., Des Moines...Major, A.U.S.
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.)...Capt., A.U.S.
 Morden, R. P., Des Moines (APO 635, New York, N. Y.)...Capt., A.U.S.
 Mumma, C. S., Des Moines (Los Angeles, Cal.)...Major, A.U.S.
 Murphy, J. H., Des Moines (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Nelson, A. L., Des Moines (Camp Livingston, La.) Major, A.U.S.
 Noun, L. J., Des Moines (Camp Peary, Va.)...Lt., U.S.N.R.
 Noun, M. H., Des Moines (APO 228, New York, N. Y.)...Major, A.U.S.
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.)...Lt., U.S.N.
 Overton, L. M., Des Moines (Great Lakes, Ill.)...Lt. Comdr., U.S.N.R.
 Patton, B. W., Des Moines (Camp Robinson, Ark.)...1st Lt., A.U.S.
 Pearlman, L. R., Des Moines (San Antonio, Texas)....Major, A.U.S.
 Peison, C. J., Des Moines (APO 165, New York, N. Y.)...Capt., A.U.S.
 Penn, E. C., West Des Moines (APO 650, New York, N. Y.)...Capt., A.U.S.
 Pfeiffer, E. P., Des Moines (APO 501, San Francisco, Cal.)...Capt., A.U.S.
 Phillips, A. B., Des Moines (Corona, Cal.)...Lt., U.S.N.R.
 Porter, R. J., Des Moines (APO 635, New York, N. Y.)...Capt., A.U.S.
 Powell, L. D., Des Moines (Oceanside, Cal.)...Capt., U.S.N.R.
 Pratt, E. B., Des Moines (APO New York, N. Y.)...Major, A.U.S.
 Priestley, J. B., Des Moines (APO 689, New York, N. Y.)...Lt. Col., A.U.S.
 Purdy, W. O., Des Moines (APO 5935, New York, N. Y.)...Capt., A.U.S.
 Riegelman, R. H., Des Moines (APO 559, New York, N. Y.)...Major, A.U.S.
 Robinson, V. C., Des Moines (Gulfport, Miss.)...Major, A.U.S.
 Rotkow, M. J., Des Moines (Camp Atterbury, Ind.)...Capt., A.U.S.

Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
Schlaser, V. L., Des Moines (Hutchinson, Kan.).....Lt., U.S.N.
Shepherd, L. K., Des Moines (APO New York, N. Y.).....Major, A.U.S.
Shiffler, H. K., Des Moines (APO 230, New York, N. Y.).....Capt., A.U.S.
Singer, P. L., Des Moines (Camp Grant, Ill.).....1st Lt., A.U.S.
Skulety, J. A., Des Moines (New Orleans, La.).....P. A. Surg., U.S.P.H.S.
Smead, H. H., Des Moines (APO 595, New York, N. Y.).....Capt., A.U.S.
Smith, H. J., Des Moines (Chicago, Ill.).....Lt., U.S.N.R.
Smith, R. T., Des Moines (APO 713, Unit I, San Francisco, Cal.).....Capt., A.U.S.
*Snodgrass, R. W., Des Moines (APO 9528, New York, N. Y.).....Capt., A.U.S.
Snyder, G. E., Grimes (APO 264, San Francisco, Cal.).....Major, A.U.S.
Sohn, H. A., Des Moines (Great Lakes, Ill.).....Lt. Comdr., U.S.N.R.
Sorensen, R. M., Des Moines (Topeka, Kan.).....Major, U.S.P.H.S. ♦
Springer, F. A., Des Moines (Treasure Island, Cal.).....Lt. Comdr., U.S.N.R.
Stearns, A. B., Des Moines (Denver, Colo.).....Major, A.U.S.
Stickler, Robert, Des Moines (APO New York, N. Y.).....Major, A.U.S.
Stitt, P. L., Des Moines (Seattle, Wash.).....Lt. (jg), U.S.N.R.
Throckmorton, J. F., Des Moines (APO 339, New York, N. Y.).....Major, A.U.S.
Toubes, A. A., Des Moines (APO 635, New York, N. Y.).....Capt., A.U.S.
Turner, H. V., Des Moines (Camp Fannin, Texas).....Capt., A.U.S.
Uddegaff, Thomas, Des Moines (APO San Francisco, Cal.).....Capt., A.U.S.
Van Hale, L. A., Des Moines (Clinton, Iowa).....Major, A.U.S.
Vaubel, E. K., Des Moines (Washington, D. C.).....Capt., A.U.S.
Wagner, E. C., Des Moines (Washington, D. C.).....1st Lt., A.U.S.
Willett, W. M., Des Moines (APO 507, New York, N. Y.).....Capt., A.U.S.
Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
Zarchy, A. C., Des Moines (Camp Cooke, Cal.).....Capt., A.U.S.

Pottawattamie County
†Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.).....Major, A.U.S.
Collins, R. M., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
Dean, A. M., Council Bluffs (Pensacola, Fla.).....Comdr., U.S.N.R.
Edwards, C. V., Council Bluffs (Pensacola, Fla.).....Lt. Comdr., U.S.N.R.
Floersch, E. B., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
Hennessy, J. D., Council Bluffs (Clinton, Okla.).....Lt. Comdr., U.S.N.R.
Jensen, A. L., Council Bluffs (Temple, Texas).....Lt. Col., A.U.S.
Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.).....Lt., U.S.N.R.
Kurtz, C. J., Council Bluffs (Camp Crowder, Mo.).....Capt., A.U.S.
Limbirt, E. M., Council Bluffs (APO 403, New York, N. Y.).....Major, A.U.S.
Maiden, S. D., Council Bluffs (Camp Hood, Texas).....Major, A.U.S.
Martin, L. R., Council Bluffs (Auburn, Cal.).....Capt., A.U.S.
Mathiasen, H. W., Neola (Alexandria, La.).....Capt., A.U.S.
Moskovitz, J. M., Council Bluffs (APO 887, New York, N. Y.).....Capt., A.U.S.
Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.).....Capt., A.U.S.
Standeven, W., Oakland (Colorado Springs, Colo.).....Capt., A.U.S.
Sternhill, Isaac, Council Bluffs (Camp Crowder, Mo.).....Capt., A.U.S.
Tinley, R. E., Council Bluffs (APO 600, New York, N. Y.).....Major, A.U.S.
Treyner, J. V., Council Bluffs (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
West, A. G., Council Bluffs (APO 230, New York, N. Y.).....Capt., A.U.S.
Wieseler, R. J., Avoca (McChord Field, Wash.).....A.U.S.
Wurl, O. A., Council Bluffs (APO 887, New York, N. Y.).....Lt. Col., A.U.S.

Poweshiek County
Brobyn, T. E., Grinnell (APO 18593, New York, N. Y.).....Major, A.U.S.
Hickerson, L. C., Brooklyn (APO 559, New York, N. Y.).....Capt., A.U.S.
Korfmacher, E. S., Grinnell (APO 923, San Francisco, Cal.).....Capt., A.U.S.
Niemann, T. V., Brooklyn (APO 43, San Francisco, Cal.).....Capt., A.U.S.
Parish, J. R., Grinnell (Oakland, Cal.).....Lt. Comdr., U.S.N.R.
Somers, P. E., Grinnell (St. Louis, Mo.).....1st Lt., A.U.S.

Ringgold County
Seaman, C. L., Mount Ayr (Fort Smith, Ark.).....Major, A.U.S.

Sac County
Bassett, G. H., Sac City (Metairie, La.).....Lt. Comdr., U.S.N.R.
Deters, D. C., Schaller (APO 34, New York, N. Y.).....Capt., A.U.S.
Evans, W. L., Sac City (APO 9212, New York, N. Y.).....Capt., A.U.S.
Klocksism, R. G., Odebolt (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
Neu, H. N., Sac City (APO 708, San Francisco, Cal.).....Lt. Col., A.U.S.

Scott County
†Baker, R. W., Davenport (APO 511, New York, N. Y.).....Capt., A.U.S.

Balzer, W. J., Davenport (APO 569, New York, N. Y.).....Capt., A.U.S.
Bishop, J. F., Davenport (Camp Wheeler, Ga.).....Capt., A.U.S.
Block, L. A., Davenport (Cambridge, Ohio).....Major, A.U.S.
Boden, W. C., Davenport (APO 3760, New York, N. Y.).....Capt., A.U.S.
Boyer, U. S., Davenport (Rock Island, Ill.).....Lt. Col., A.U.S.
Brown, M. J., Davenport (APO 562, New York, N. Y.).....Major, A.U.S.
Carey, E. T., Davenport (APO 923, San Francisco, Cal.).....1st Lt., A.U.S.
Christiansen, C. C., Dixon (APO 961, San Francisco, Cal.).....Capt., A.U.S.
Coleman, Tom, Davenport (APO 230, New York, N. Y.).....Capt., A.U.S.
Cummins, G. M., Jr., Davenport (Fort Custer, Mich.).....Capt., A.U.S.
Decker, C. E., Davenport (APO 321, San Francisco, Cal.).....Major, A.U.S.
Evans, H. J., Davenport (Daytona Beach, Fla.).....Capt., A.U.S.
Gibson, P. E., Davenport (Palm Springs, Cal.).....Major, A.U.S.
Goenne, Wm., Jr., Davenport (APO 91, New York, N. Y.).....Capt., A.U.S.
Hurevitz, H. M., Davenport (APO 370, New York, N. Y.).....Major, A.U.S.
Hurteau, Everett, Davenport (APO 647, New York, N. Y.).....Capt., A.U.S.
Hurteau, W. W., Davenport (Camp Barkeley, Texas).....Major, A.U.S.
Kimberly, L. W., Davenport (Oak Ridge, Tenn.).....Capt., A.U.S.
Kraukauer, Max, Davenport (APO 758, New York, N. Y.).....Capt., A.U.S.
Kuhl, A. B., Jr., Davenport (Ft. Meade, Md.).....1st Lt., A.U.S.
LaDuge, L. H., Davenport (APO 339, New York, N. Y.).....Major, A.U.S.
Lorfeld, G. W., Davenport (Columbus, Ohio).....Capt., A.U.S.
McMeans, T. W., Davenport (APO 557, New York, N. Y.).....Capt., A.U.S.
Neufeld, R. J., Davenport (APO 565, Unit I, San Francisco, Cal.).....Capt., A.U.S.
Perkins, R. M., Davenport (APO 121B, New York, N. Y.).....Capt., A.U.S.
Sheeler, I. H., Davenport (APO 350, New York, N. Y.).....Capt., A.U.S.
Shorey, J. R., Davenport (APO 204, New York, N. Y.).....Capt., A.U.S.
Smazal, S. F., Davenport (APO 230, New York, N. Y.).....Capt., A.U.S.
Sorensen, A. C., Davenport (Oakland, Cal.).....Comdr., U.S.N.R.
Sunderbruch, J. H., Davenport (APO 70, San Francisco, Cal.).....Capt., A.U.S.
Weinberg, H. B., Davenport (APO 72, San Francisco, Cal.).....Major, A.U.S.
Zukerman, C. M., Bettendorf (Chicago, Ill.).....Capt., A.U.S.

Shelby County
Bisgard, C. V., Harlan (Farragut, Idaho).....Lt. Comdr., U.S.N.R.
Griffith, W. O., Shelby (APO 9490, New York, N. Y.).....Capt., A.U.S.
McGowan, J. P., Harlan (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

Sioux County
Gleysteen, R. R., Alton (Portsmouth, Va.).....Lt. Comdr., U.S.N.
Grossmann, E. B., Orange City (APO 403, New York, N. Y.).....Capt., A.U.S.
Larson, M. O., Hawarden (APO 562, New York, N. Y.).....Lt. Col., A.U.S.
Oelrich, A. M., Hull (APO New York, N. Y.).....1st Lt., A.U.S.
Oelrich, C. D., Sioux Center (Buckley Field, Colo.).....1st Lt., A.U.S.

Story County
Conner, J. D., Nevada (APO 708, San Francisco, Cal.).....Capt., A.U.S.
Fellows, J. G., Ames (APO 461, New York, N. Y.).....Major, A.U.S.
Lekwa, A. H., Story City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
McFarland, G. E., Jr., Ames (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
McFarland, J. E., Ames (Seattle, Wash.).....Lt. Comdr., U.S.N.R.
Rosebrook, L. E., Ames (APO 433, New York, N. Y.).....Major, A.U.S.
Sperow, W. B., (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
Thorburn, O. L., Ames (Clovis, N. Mex.).....Major, A.U.S.
Wall, David, Ames (APO 448, New York, N. Y.).....1st Lt., A.U.S.

Tama County
Bezman, H. S., Traer (APO 9875, New York, N. Y.).....Capt., A.U.S.
Boller, G. C., Traer (Ft. Riley, Kansas).....Capt., A.U.S.
Dobias, S. G., Chelsea (APO 86, San Francisco, Cal.).....Capt., A.U.S.
Havlik, A. J., Tama (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
Schaeferle, L. G., Gladbrook (APO New York, N. Y.).....Capt., A.U.S.
Standefer, J. M., Tama (Des Moines, Iowa).....Lt., U.S.N.R.

Taylor County
Hardin, J. F., Bedford (APO 952, San Francisco, Cal.).....1st Lt., A.U.S.

Union County
Beatty, H. G., Creston (New Orleans, La.).....1st Lt., A.U.S.
Paragas, M. R., Creston (APO 442, San Francisco, Cal.).....Capt., A.U.S.
Ryan, C. J., Creston.....Capt., A.U.S.

Wapello County
Brentan, Emanuel, Ottumwa (Camp Carson, Colo.).....Capt., A.U.S.
Brody, Sidney, Ottumwa (Fort Belvoir, Va.).....Lt. Col., A.U.S.
Giffilan, C. D. N., Eldon (Battle Creek, Mich.).....Capt., A.U.S.
Howell, H. P., Ottumwa (Hamilton Field, Cal.).....Major, A.U.S.

Hughes, R. O., Ottumwa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Moore, G. C., Ottumwa (APO 314, New York, N. Y.) Capt., A.U.S.
 Nelson, F. L., Jr., Ottumwa (Springfield, Mo.) Capt., A.U.S.
 Prewitt, L. H., Ottumwa (Louisville, Ky.) Major, A.U.S.
 Selman, R. J., Ottumwa (El Paso, Texas) Lt. Col., A.U.S.
 Struble, G. C., Ottumwa (Cleveland, Ohio) Lt. Col., A.U.S.
 Whitehouse, W. N., Ottumwa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Warren County

Fullgrabe, E. A., Indianola (Fleet PO, New York, N. Y.) Lt., U.S.N.R.
 Hoffman, G. R., Lacona (Camp San Louis Obispo, Cal.) Capt., A.U.S.
 Shaw, E. E., Indianola (APO 834, New Orleans, La.) Capt., A.U.S.
 Trueblood, C. A., Indianola (APO 350, New York, N. Y.) Capt., A.U.S.

Washington County

Boice, C. L., Washington (Fleet PO, San Francisco, Cal.) Lt., U.S.N.
 Droz, A. K., Washington (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Mast, T. M., Washington (Arrowhead Springs, Cal.) Lt. Comdr., U.S.N.R.
 Miller, J. R., Wellman (APO New York, N. Y.) 1st Lt., A.U.S.
 Stutsman, R. E., Washington (Patuxent River, Md.) Lt., U.S.N.R.
 Ware, S. C., Kalona (APO 218, New York, N. Y.) Capt., A.U.S.

Wayne County

Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.) Capt., A.U.S.

Webster County

Baker, C. J., Fort Dodge (APO New York, N. Y.) Major, A.U.S.
 Burch, E. S., Dayton (Palm Springs, Cal.) Capt., A.U.S.
 Burleson, M. W., Fort Dodge (Pasadena, Cal.) Capt., A.U.S.
 Coughlan, C. H., Fort Dodge (Camp Carson, Colo.) Major, A.U.S.
 Dawson, E. B., Fort Dodge (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Glesne, O. N., Ft. Dodge (New River, N. C.) Lt. Comdr., U.S.N.R.
 Joyner, N. M., Fort Dodge (Minneapolis, Minn.) A.U.S.
 Kluever, H. C., Fort Dodge (St. Louis, Mo.) Lt. Comdr., U.S.N.R.
 Larsen, H. T., Fort Dodge (Pensacola, Fla.) Lt., U.S.N.R.
 Shrader, J. C., Fort Dodge (APO 758, New York, N. Y.) Lt. Col., A.U.S.
 †Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.) Capt., A.U.S.
 Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.) Capt., A.U.S.
 Van Patten, E. M., Ft. Dodge (El Paso, Texas) Capt., A.U.S.

Winneshiek County

Fritchen, A. F., Decorah (Mare Island, Cal.) Comdr., U.S.N.R.
 Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.) Lt. Col., A.U.S.
 Howard, W. H., Decorah Capt., A.U.S.
 Larson, L. E., Decorah (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Svendsen, R. N., Decorah (San Diego, Cal.) Lt. (Jr.), U.S.N.R.
 Van Besien, G. J., Decorah (Springfield, Mo.) Capt., A.U.S.

Woodbury County

Bettler, P. L., Sioux City (APO 235, San Francisco, Cal.) Lt. Col., A.U.S.
 Blackstone, M. A., Sioux City (San Francisco, Cal.) Capt., A.U.S.
 Boe, Henry, Sioux City (Fort Snelling, Minn.) Capt., A.U.S.
 Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 †Cmeyla, P. M., Sioux City (P.O.W., c/o Japanese Red Cross, Tokyo, Japan) Capt., A.U.S.
 Cowan, J. A., Sioux City (Oklahoma City, Okla.) Major, U.S.P.H.S.
 Crowder, R. E., Sioux City (Kansas City, Mo.) Lt. Comdr., U.S.N.R.
 Dimsdale, L. J., Sioux City (Clinton, Iowa) Capt., A.U.S.
 Down, H. I., Sioux City (APO 758, New York, N. Y.) Lt. Col., A.U.S.
 Elson, V. J., Danbury (APO 9875, New York, N. Y.) Capt., A.U.S.
 Frank, L. J., Sioux City (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Graham, J. W., Sioux City (Pensacola, Fla.) Lt. Comdr., U.S.N.R.
 Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.) Capt., A.U.S.
 Harris, D. M., Sioux City (APO 444, New York, N. Y.) Capt., A.U.S.
 Heffernan, C. E., Sioux City (APO 17682, San Francisco, Cal.) Capt., A.U.S.
 Hicks, W. K., Sioux City (Spokane, Wash.) Major, A.U.S.
 Honke, E. M., Sioux City (Palm Springs, Cal.) Major, A.U.S.
 Kaplan, David, Sioux City (APO 36, New York, N. Y.) Capt., A.U.S.
 Knott, P. D., Sioux City (Camp Crowder, Mo.) Capt., A.U.S.
 Knott, R. C., Sioux City (APO 403, New York, N. Y.) Major, A.U.S.
 Kristgen, W. M., Sioux City (Springfield, Mo.) Lt. Col., A.U.S.
 Lande, J. N., Sioux City (APO 63, New York, N. Y.) Major, A.U.S.
 Martin, R. F., Sioux City (APO 403, New York, N. Y.) Capt., A.U.S.
 Mattice, L. H., Danbury (APO 713, San Francisco, Cal.) 1st Lt., A.U.S.

McCuistion, H. M., Sioux City (APO 209, New York, N. Y.) Capt., A.U.S.
 Mugan, R. C., Sioux City (Miami Beach, Fla.) Capt., A.U.S.
 Osineup, P. W., Sioux City (APO 520, New York, N. Y.) Capt., A.U.S.
 Rarick, I. H., Sioux City (Camp Pinedale, Cal.) Capt., A.U.S.
 Reader, J. E., Jr., Sioux City (APO 209, New York, N. Y.) Capt., A.U.S.
 Ryan, M. J., Sioux City (Topeka, Kan.) Major, A.U.S.
 Schwartz, J. W., Sioux City (APO 888, New York, N. Y.) Lt. Col., A.U.S.
 Tracy, J. S., Sioux City (Camp Polk, La.) Major, A.U.S.

Worth County

Westly, G. S., Manly (APO 927, San Francisco, Cal.) Major, A.U.S.

Wright County

Aagesen, C. A., Dows (APO 383, New York, N. Y.) Capt., A.U.S.
 Bird, R. G., Clarion (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Doles, E. A., Clarion (Spokane, Wash.) Capt., A.U.S.
 Gorrell, R. L., Clarion (Denver, Colo.) P.A. Surg., U.S.P.H.S.
 Leinbach, S. P., Belmont (Farragut Air Base, Idaho) U.S.N.R.
 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.) Capt., A.U.S.

(*) Reported missing in action.

(†) Reported deceased in service.

(‡) Reported prisoner of war.

MINUTES OF MEETINGS OF STATE SOCIETY OFFICERS AND COMMITTEES

Meeting of the Committee on Medical Service and Public Relations

Sunday, May 20, 1945

The Committee on Medical Service and Public Relations of the Iowa State Medical Society met in the central office Sunday morning, May 20, 1945, with the following doctors present: Fred Sternagel, chairman, R. D. Bernard, M. C. Hennessy, L. R. Woodward, M. I. Olsen, R. C. Gutch and C. T. Maxwell of the committee; W. A. Sternberg, trustee; R. L. Parker, president-elect; J. C. Parsons, secretary; and J. W. Billingsley of the Legislative Committee.

Committee work for the year was divided as follows: Dr. Sternagel, contact man for the State Department of Health, labor groups, and other state health organizations; Dr. Olsen, insurance; Dr. Maxwell, medical economics; Dr. Woodward, Board of Control and its institutions exclusive of educational, basic science and medical examiners board; Dr. Hennessy, state educational institutions; Dr. Gutch, Council and veterans organizations; and Dr. Bernard, national legislation and liaison with state legislation.

The Committee voted to recommend to the governor the appointment of a psychiatrist, possibly Dr. A. H. Woods of Iowa City, as the fifth man of a committee to investigate state mental hospitals and care of the insane.

A proposal from Colonel Shane regarding the State Society for Mental Hygiene was referred to Dr. Sternagel for further study and recommendation back to the committee.

The Committee voted to cooperate with Colonel Wynn and Colonel Carrington in presenting another medical meeting at Schick General Hospital, and suggested September as a good month.

Dr. Bernard reported on his trip to Detroit (see page 229), and the Michigan radio program was discussed and referred to a special committee for further study and recommendation. Dr. G. E. Mountain was made chairman of this committee; the other members were Doctors Parsons, Sternberg, and Hennessy.

The possibility of having telephone conferences instead of meetings was discussed and the executive secretary was asked to determine the cost. Meeting adjourned at 11:10 a. m.

WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

President—MRS. SOREN S. WESTLY, Manly

President-Elect—MRS. ARTHUR E. MERKEL, Des Moines

Secretary—MRS. KEITH M. CHAPLER, Dexter

Treasurer—MRS. HARRY W. DAHL, Des Moines

REPORT OF THE BUSINESS SESSION OF THE AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

The limited business session of the Woman's Auxiliary to the Iowa State Medical Society was held in the French Room at Younkers in Des Moines on Thursday, April 19, 1945. The following members registered: Mrs. E. T. Warren, Stuart; Mrs. W. A. Seidler, Jamaica; Mrs. J. A. Downing, Des Moines; Mrs. A. E. Merkel, Des Moines; Mrs. Ivan K. Sayre, St. Charles; Mrs. M. C. Hennessy, Council Bluffs; Mrs. W. R. Hornaday, Des Moines; Mrs. F. W. Mulsow, Cedar Rapids; Mrs. H. I. McPherrin, Des Moines; Mrs. P. W. Beckman, Perry; Mrs. M. A. Armstrong, Newell; Mrs. K. M. Chapler, Dexter; Mrs. F. A. Rolfs, Aplington; Mrs. Soren S. Westly, Manly; Mrs. Roger Minkel, Fort Dodge; Mrs. J. C. Decker, Sioux City; and Mrs. A. C. Starry, Sioux City.

Mrs. J. C. Decker, state president, called the meeting to order. She commented on the fact that this was the first time in some sixty years that the Iowa State Medical Society had failed to have an annual convention and the first time in fourteen years that the Auxiliary had not met in state session. The post-convention minutes were read by the secretary, Mrs. A. C. Starry.

Mrs. Decker read her annual report and emphasized particularly that the membership had held up favorably, the total being 338 with an increase of three new counties, the latter being due to the fine work of Mrs. S. S. Westly, president-elect.

Mrs. Westly made her annual report. Mrs. K. M. Chapler reported for Press and Publicity. Mrs. P. W. Beckman reported 111 subscriptions to *Hygeia* with Dallas-Guthrie and Dubuque counties receiving honorable mention in the national contest. Mrs. M. C. Hennessy reported for War Service by reviewing the questionnaires returned by ten counties. Mrs. J. A. Downing reported for Legislation. Mrs. W. R. Hornaday reported for the Nurses Loan Fund in which there is a current balance on hand of \$400.65 and to which auxiliaries are urged to continue their contributions against the day when government aid will be abandoned.

Mrs. A. E. Merkel, treasurer, announced a balance on hand to date of \$360.85 and urged that members pay dues early in the year so that memberships may not be overlooked or forgotten. Louisa,

Madison, and Worth counties are 100 per cent in membership.

There were reports from Dallas-Guthrie, Dubuque, Polk, Pottawattamie, Sioux Med-Dames, Upper Iowa, and Worth County Auxiliaries.

Mrs. S. S. Westly introduced the presidents of the three new county auxiliaries: Mrs. Roger Minkel of Fort Dodge whose Webster County Auxiliary has a membership of 17; Mrs. M. A. Armstrong of Newell whose Buena Vista County Auxiliary has a membership of 13; and Mrs. F. A. Rolfs of Aplington whose Butler County Auxiliary has a membership of 9.

All members of the session stood in silent tribute to the memory of the three reported members who died last year: Mrs. C. E. Birney of Spirit Lake, Mrs. S. T. Foster of Adel, and Mrs. D. J. Brookings of Woodward.

The report of the nominating committee was accepted as read by Mrs. W. R. Hornaday and the following officers were declared elected: president, Mrs. S. S. Westly, Manly; president-elect, Mrs. A. E. Merkel, Des Moines; 1st vice president, Mrs. M. H. Brinker, Jefferson; 2nd vice president, Mrs. I. K. Sayre, St. Charles; 3rd vice president, Mrs. M. J. Moes, Dubuque; 4th vice president, Mrs. W. R. Hombach, Council Bluffs; secretary, Mrs. K. M. Chapler, Dexter; treasurer, Mrs. H. W. Dahl, Des Moines; and directors, Mrs. F. W. Mulsow, Cedar Rapids; Mrs. W. S. Reiley, Red Oak, and Mrs. J. C. Decker, Sioux City. The officers were installed by Mrs. M. C. Hennessy, Council Bluffs.

Mrs. H. I. McPherrin expressed the gratitude of the group to Mrs. Decker for her services during a year which was very difficult for her personally. Mrs. I. K. Sayre thanked the Des Moines women for their continued convention courtesies. Mrs. Decker presented the gavel to Mrs. Westly, who promised to do her best during these trying times. There was a broad discussion of the need for more organized county auxiliaries. It was also agreed that the wives of doctors in service should be kept interested and in touch with auxiliary work.

Mrs. Westly announced that there would be few changes in state committee memberships. The following chairmen were announced: Program, Mrs. Fred Moore, Des Moines; Legislation, Mrs. J. A. Downing, Des Moines; Press and Publicity, Mrs. K. M. Chapler, Dexter; Finance, Mrs. E. T. Warren, Stuart; Historian, Mrs. W. A. Seidler, Jamaica;

Hygeia, Mrs. P. W. Beckman, Perry; Public Relations, Mrs. D. J. Glomset, Des Moines; Nurses Loan Fund, Mrs. W. R. Hornaday, Des Moines; Defense, Mrs. G. S. Westly, Manly; and War Service, Mrs. M. C. Hennessy, Council Bluffs.

Mrs. K. M. Chapler, Chairman,
Press and Publicity.

PRESIDENT'S ANNUAL REPORT

The Woman's Auxiliary to the Iowa State Medical Society was organized May 9, 1929. We are sixteen years old this year.

For many of our state and county auxiliaries this has been a difficult year. Many of our doctors have gone into service, thus affecting homes and auxiliaries. This is the first time in the history of the Auxiliary that an annual convention has been canceled, but in the interest of the war effort the Woman's Auxiliary is happy to cooperate with the ODT.

Our accomplishments and activities in the years past are due to the untiring efforts of the many fine women who pioneered in the work of the Auxiliary. This year countless hours of voluntary services to the Red Cross have been given by our members in nurse's aide, nutrition, home nursing, occupational therapy, surgical dressings, blood plasma clinics, bond drives, and war services of all kinds.

In my letter early in the year I stressed the word "service," hoping it would be the keynote for this year's work. Our Nurses Loan Fund is one of our defense projects. At present the government is educating the cadet nurse, but after the war there will be a great need for scholarships. Every auxiliary is urged to add to this fund; send contributions to Mrs. W. R. Hornaday, 612 Forty-fourth Street, Des Moines 12, Iowa.

Due to illness in my family I was unable to attend the National Auxiliary meeting in Chicago in June. Mrs. W. S. Reiley graciously attended in my place. Mrs. Warren, Mrs. Westly, Mrs. Mulsow, and Mrs. Miller also attended. A report of the board meeting and the activities was published in the Woman's Auxiliary News.

Your secretary and president were honored guests at a tea in September, given by the Sioux Med-Dames (Woodbury County Auxiliary). On November 16 and 17 I attended the first conference of State Presidents, Presidents-Elect, and Chairmen of Standing Committees at the Palmer House in Chicago. It was an inspiration to meet the presidents of twenty states. Forty-two states and the District of Columbia are organized with a total membership of 24,356.

On March 23 I was a guest of the Polk County Auxiliary at a luncheon meeting at which an inspiring talk was given by Dr. W. W. Bauer. I wish it might have been possible for me to have visited all the Auxiliaries this past year. Since it was not, I feel I have missed that fine contact which every president cherishes.

Organization of county auxiliaries has always received much time and thought, but due to restric-

tion in travel, etc., it has been difficult. The president-elect as organization chairman and her committee have worked faithfully. All of the organized counties have paid dues and are maintaining their societies, even if there are only four or five members in a county. Our ever faithful treasurer, Mrs. Merkel, has written many letters during the year; and our membership has decreased only eight members.

Every member should inform herself on legislative activities. The legislative bulletin as issued by our chairman, Mrs. J. A. Downing, and her committee, and mailed to each member during March, contained much valuable information.

Through the Bureau of Health Education, the American Medical Association offers the state auxiliaries several ways of cooperating in health education by radio. Every Saturday afternoon at three o'clock a thirty minute program, "Doctors Look Ahead," is dramatized. Many fine programs can be obtained for use of school children, also adult programs, by writing Dr. W. W. Bauer, 535 North Dearborn Street, Chicago 10, Illinois.

Hygeia, the Health Magazine, is an excellent means of presenting good sound information to the public. Mrs. Beckman and her committee have promoted the magazine. Again congratulations to the Dallas-Guthrie Auxiliary for exceeding its quota of twenty-five subscriptions (total thirty-one). I wish to urge that every county president be a subscriber to the *Bulletin*; it is the official magazine of the National Auxiliary and costs only one dollar a year.

I wish to express my appreciation to the office staff of the State Medical Society in mailing the reprints of the News to the members each month and to the State Medical Society for granting us the privilege of this news sheet, and also to the State Medical Society for the generous donation to our budget each year.

It has been a privilege to have served as president of this organization and I wish to thank every officer, the chairman and members of the standing committees, and the presidents of the county auxiliaries for the splendid way in which they have carried forward in these trying times.

During these war years I feel if we can hold our Auxiliary together, keep up our war work, and promote the health education program—if possible, increase our membership and influence public opinion on pending health legislation measures—we have rendered some small service to the medical profession and the public as well.

Mrs. J. C. Decker, President.

SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 2:45 p. m.

WSUI—Thursdays at 9:00 a. m.

June 6-7 Obesity Arthur F. Grandinetti, M.D.

June 13-14 Nervous Exhaustion

Lee R. Woodward, M.D.

June 20-21 Asthma George W. Rimel, M.D.

June 27-28 Common Symptoms of Gallbladder Disease Tom D. Throckmorton, M.D.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. WALTER L. BIERRING, Des Moines, Chairman

DR. HENRY G. LANGWORTHY, Dubuque, *Secretary* DR. CHARLES L. JONES, Gilmore City

DR. CLYDE A. HENRY, Farson

DR. LESTER C. KERN, Waverly

Medical History of Wapello County

CLYDE A. HENRY, M.D., Farson

Part IV

A COMPENDIUM OF WAPELLO COUNTY MEDICAL HISTORY FROM 1853 TO 1945

(Continued from last month)

EARLY PIONEER DOCTORS*

Dr. F. H. Buck was born in 1823 and died in Eddyville, Iowa, in 1869, where he had practiced medicine several years. Although he died at the early age of forty-six, his neighbors always referred to him as "Old Doc Buck." Reputedly an efficient physician, he was the first mayor of Eddyville, having been elected in May, 1857. He was buried at Eddyville.

Dr. William L. Orr was born in Washington, Washington County, Pennsylvania, April 12, 1823. He completed a classical education at Washington College and received his medical degree from Jefferson Medical College, Philadelphia. He came to Iowa in 1844, locating in Fairfield where he practiced eight years. In March, 1852, he moved to Ottumwa and opened a drug store which he operated for several years. He was the first principal of the Ottumwa public school, serving from 1856 to 1858 when he resigned to engage again in the practice of medicine. He was elected mayor of Ottumwa in 1860, and re-elected three times. In March, 1862, he was appointed assistant surgeon of the 3rd I. V. C. and in December of the same year, promoted to surgeon of the 21st I. V. I., in which position he continued until November, 1864, when he was forced to resign because of ill health. From 1876 to 1878 he was again engaged in the drug business. Besides serving as alderman and city clerk at an early date, he was elected justice of the peace in October, 1876. Not only was Dr. Orr a successful physician, a shrewd politician, and a prominent educator, but he achieved an equally important rôle in the religious activities of his community. On Saturday, December 24, 1853,

twenty-three Presbyterians gathered in a room in the old Courthouse in Ottumwa and organized the First Presbyterian Church. John M. Taylor, John Hite, and Dr. W. L. Orr were elected, ordained and installed as elders. Dr. Orr served on the board of elders to the end of his life. He died in Ottumwa.

Dr. Orr was married to Miss Ruth Baldwin of Washington County, Pennsylvania, on February 24, 1846. They had eight children. One daughter survives, Mrs. Margaret Orr Pool, who is eighty-nine years of age. She left her home in Ottumwa two years ago to live with a niece in Ridgefield, Connecticut.

Dr. Charles Chunn Warden was born at Maysville, Mason County, Kentucky, November 20, 1816, and died at his home in Ottumwa, Iowa, on February 14, 1902. His father, Richard Henry Warden, and his mother, Elizabeth Charity Chunn, came from Hanover County, Virginia, and lived near Maysville, Mason County, Kentucky, until 1834 when the family moved to a farm near Batavia, Ohio, where the father died in 1837. In 1838 the family left Ohio and settled at Greenburg, Decatur County, Indiana. Mrs. Warden, the mother, subsequently married Colonel John Kane. She died at Williamsburg, Ohio, in 1874.

Young Warden lived on a farm and attended schools in Kentucky and Ohio until he was eighteen years old. After a short course in an Academy in Greensburg, he worked in a drug store and studied medicine for two years with Dr. Fogg of that place as his preceptor. After graduating from the Ohio Medical College in Cincinnati, he returned to Greensburg to practice medicine with Dr. Fogg. Dr. Fogg died some six months later, however, and Dr. Warden, his own health failing,

*Group picture appeared in January issue.

decided to quit practice and go west. He arrived in Ottumwa on July 4, 1843, and remained to become the first graduate physician to practice medicine in Wapello County. In 1851 he engaged in the mercantile business, but continued in active practice until 1856. He helped to organize the Wapello County Medical Society in May, 1853, and was its first president. He was a member of the board of trustees of the Agricultural College, Ames, for four years and chairman of that board for two years. He served many years on the Ottumwa School Board, and played an important rôle in the affairs of the First Methodist Church.

Dr. Warden married Miss Martha Williams of Cincinnati, Ohio, June 13, 1846. They had twelve children, one of whom, Lucy N., wife of the late Dr. D. C. Brockman, survives. She resides in Ottumwa.

Dr. D. S. Fairchild wrote well and truthfully the following lines: "Dr. Warden was a sturdy pioneer. . . . His philosophic acceptance of the unrecorded hardships of sickness and debt and exposure was an inspiration to his neighbors. . . . To him and others who have seen the wildness fade away and cities spring up, the present generation owes a great debt."

Dr. Andrew D. Wood was born in Scipio, New York, in 1809 and died in Ottumwa, October 12, 1862, of pulmonary tuberculosis. He received his premedical education in his native town, but studied medicine at Auburn, New York, under Dr. Morgan, a prominent physician of that city who, for many years, had charge of the medical department of the State Penitentiary. He received his medical degree from the Fairfield Medical College, near Utica, New York, and practiced medicine a few years at Port Byron. In 1849 he came west, finally locating in Ottumwa, where he soon gained prominence both as a man and a physician. He was one of a group of six physicians who organized the Wapello County Medical Society in 1853.

Dr. Wood married Miss Eliza Ann Pease, who was born in Seneca County, New York, in 1812. To them were born eight children.

Upon the occasion of his death, the Ottumwa *Courier* said: "In his profession he was prompt, energetic and skillful; to the fraternity, he was kind and obliging, seeming to the younger members more as a tutor than a competitor. Socially no man was his superior—nature had stamped him with a noble spirit and great mind."

Dr. Salisbury Eugene O'Neill was born near Chambersburg, Franklin County, Pennsylvania, September 29, 1836. His father died when he was ten years old and left a large family which he

helped his mother support. During the summer months he worked on a farm, and in winter he worked for his board and attended the local schools. Finally, he completed a short course at Fayette Academy, and then engaged in rural school teaching.

During his three years of teaching, he read medical books borrowed from the library of Dr. George W. Smith of Green Village, finally associating himself with Dr. J. C. Richards, under whose direction he continued the study of medicine until 1863-64 when he attended a course of lectures at Jefferson Medical College. From 1864 to 1871 he engaged in the practice of medicine. In the winter of 1871-72 he was a student at Bellevue Hospital Medical College, from which he received his medical degree. After graduating he practiced at Lathrop and Carrollton, Missouri, until 1879, when he came to Ottumwa and established himself both as a good citizen and a successful physician.

For many years Dr. O'Neill was active in the affairs of the Wapello County Medical Society, his office affording the meeting place of the Society part of the time. He was also a member of the State Society, Des Moines Valley Medical Society and the American Medical Association. He was a prominent Democrat and filled many offices in his party's organization. He was county coroner at the time of his death.

Dr. O'Neill was twice married, first in 1860 to Miss Maria Baney, of Franklin County, Pennsylvania, who died in 1875 leaving two children. Two years later he married Miss Mary Quirk, a native of Illinois, and to them two children were also born.

Dr. David C. Dinsmore was born in York County, Pennsylvania, December 10, 1830. His parents, James and Dorcas Grizzell Dinsmore, moved to a farm in Ashland County, Ohio, when he was a child. He left the farm at the age of twenty-one and studied medicine for six years in the office of Dr. Firestone of Wooster, Ohio. He was graduated February 26, 1861, from the Western Reserve Medical College, Cleveland, with a degree of doctor of medicine. He came to Martinsburg, Iowa, after receiving his degree and opened an office. He enlisted the same year, and was mustered out with the rank of captain. He resumed practice in June, 1865, locating at Kirkville, Iowa.

On April 2, 1863, he married Miss Cyrilla J. Andrew, who was born in Lafayette County, Indiana, March 7, 1834. To them were born six children.

Dr. Dinsmore was a successful physician; and despite the hardships of a pioneer country doctor, he lived to be ninety-one years old.

(To be continued)

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

DOCTORS AT WAR—Edited by Morris Fishbein, M.D., Editor of *The Journal of the American Medical Association* and of *Hygeia*, *The Health Magazine*; Chief Editor of War Medicine; Chairman of the Committee on Information of the Division of Medical Sciences of the National Research Council. E. P. Dutton & Company, Inc., New York, 1945. Price, \$5.00.

THE 1944 YEAR BOOK OF INDUSTRIAL AND ORTHOPEDIC SURGERY—Edited by Charles F. Painter, M.D., Orthopedic Surgeon to the Massachusetts Women's Hospital and Beth Israel Hospital, Boston. The Year Book Publishers, Chicago, 1945. Price, \$3.00.

MEDICAL GYNECOLOGY—By James C. Janney, M.D., Assistant Professor of Gynecology, Boston University School of Medicine, Boston, Massachusetts. W. B. Saunders Company, 1945. Price, \$5.00.

MALARIA IN THE UPPER MISSISSIPPI VALLEY, 1760-1900—By Erwin H. Ackerknecht. Supplements to the *Bulletin of the History of Medicine*, No. 4. The Johns Hopkins Press, Baltimore, 1945. Price, \$2.00.

PENICILLIN THERAPY, Including Tyrothricin and Other Antibiotic Therapy—By John A. Kolmer, M.D., Professor of Medicine in the School of Medicine and the School of Dentistry, Temple University; Director of the Research Institute of Cutaneous Medicine; Formerly Professor of Pathology and Bacteriology, Graduate School of Medicine, University of Pennsylvania. D. Appleton-Century Company, New York, 1945. Price, \$5.00.

CONSTITUTION AND DISEASE, Applied Constitutional Pathology—By Julius Bauer, M.D., Professor of Clinical Medicine, College of Medical Evangelists, Los Angeles; Senior Attending Physician, Los Angeles County General Hospital, Los Angeles; Formerly Professor of Medicine, University of Vienna. Second edition, revised and enlarged. Grune & Stratton, New York, 1945. Price, \$4.00.

PENICILLIN AND OTHER ANTIBIOTIC AGENTS—By Wallace E. Herrell, M.D., Assistant Professor of Medicine, the Mayo Foundation, University of Minnesota; Consultant in Medicine, Mayo Clinic, Rochester, Minnesota. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

INTERNAL MEDICINE, Its Theory and Practice—Edited by John H. Musser, M.D., Professor of Medicine in The Tulane University of Louisiana School of Medicine; Senior Visiting Physician to the Charity Hospital, New Orleans, Louisiana. Fourth edition, thoroughly revised. Lea & Febiger, Philadelphia, 1945. Price, \$10.00.

APPROVED LABORATORY TECHNIC—By John A. Kolmer, M.D., Professor of Medicine in the School of Medicine and the School of Dentistry, Temple University, Director of the Research Institute of Cutaneous Medicine; and FRED BOERNER, V.M.D., Associate Professor of Clinical Bacteriology, Graduate School of Medicine, and Assistant Professor of Bacteriology, School of Medicine, University of Pennsylvania, Bacteriologist, Graduate Hospital, Philadelphia. Fourth edition. D. Appleton-Century Company, Inc., New York, 1945. Price, \$10.00.

BOOK REVIEWS

PERIPHERAL NERVE INJURIES

By Webb Haymaker, Captain, M.C., A. U. S., Neuropathologist, The Army Institute of Pathology, Washington, D.C. (on leave of absence from the University of California, San Francisco and Berkeley); and BARNES WOODHALL, Major, M.C., A.U.S., Chief, Neurosurgical Section, Walter Reed General Hospital, Washington, D. C. (on leave of absence from Duke University, Durham, North Carolina). W. B. Saunders Company, Philadelphia, 1945. Price, \$4.50.

This is a practical treatise on diagnosis and localization of lesions of the nerves. It will be appreciated alike by the specialist in nervous diseases and the general practitioner who finds interest and pleasure in exact localization of nerve lesions, whether of traumatic or other origin. It brings together in concise form the anatomy and physiology of the nervous system. The generous illustrations make more easily understandable the otherwise difficult phases of nerve localization.

The second section of the book deals with practical examinations to determine type and extent of nerve injury. It illustrates various tests of motor function and discusses alterations in sensation, sweating, vasomotor and trophic changes. Less used tests such as dermatometry, faradic electricity, and chronaxie are discussed in detail. Section three illustrates the more common injuries to nerve plexuses and peripheral nerves. The book is thoroughly illustrated by drawings and photographs and is easily readable.

The volume was conceived as a brochure for distribution to Army medical installations. It has

evolved as a valuable monograph for the neurologist, surgeon, and general practitioner of medicine.

J. I. M.

MILITARY MEDICAL MANUALS A MANUAL OF TROPICAL MEDICINE

Prepared under the Auspices of the Division of Medical Sciences of the National Research Council. W. B. Saunders Company, Philadelphia, 1945. Price, \$6.00.

This manual, prepared under the auspices of the Division of Medical Sciences of the National Research Council, has succeeded in its aim of providing "a concise statement of the most recent available and authoritative information concerning the more important tropical diseases." It is well written and the subject matter is well organized. It is a relatively small volume but is comprehensive in its scope, and the selection of subject material is excellent; it includes not only those diseases which are confined almost exclusively to the tropics, but other diseases and deficiencies which, while unduly prevalent in the tropics, are encountered in temperate climates.

A chapter on Laboratory Diagnostic Methods is of unusual value, especially to those who are called upon to perform these tests and procedures at infrequent intervals. The chapter on Drug Therapy of Helminth Infections presents the pharmacology, toxicology, indications, contraindications and specific instructions for the use of the drugs, including information on some of the newer therapeutic agents.

The illustrations are abundant and of excellent quality; the drawings illustrating the epidemiologic

aspects of the various diseases are original in concept and of distinct aid in visualizing this phase of the problem. The index is complete and detailed, a feature which always appeals to this reviewer and which is particularly valuable in a manual of this type.

The subject matter is concise, informative, and to the point. When specific therapy is available, the directions are specific as to dosage and administration. When no specific therapy is available, it is so stated. The descriptions of the clinical aspects of the diseases are brief and, if the book is to be criticized in any way, this is its weakest point, although the essential features of a disease are always to be found. Since the book is designed to present a concise and brief description of the diseases which "can in no way supplant the standard texts in the field," this brevity is a virtue.

The reviewer believes this book is the most useful and authoritative text available in its field and should be on the desk of all practitioners.

W. M. F.

THE ABORTION PROBLEM

Proceedings of the Conference held under the Auspices of the National Committee on Maternal Health, Inc., at the New York Academy of Medicine, June 19 and 20, 1942. Howard C. Taylor, Jr., M.D., Conference Chairman. The Williams & Wilkins Company, Baltimore, 1944.

This monograph is a stenographic report of a conference on abortion in which the medical, legal, social, and economic aspects are considered. In addition to the papers presented, the discussion of the conference is completely reproduced. The purely medical aspects are rather superficially handled, especially the clinical problems. The moral, economic, social, and legal problems are well presented and their relation to medicine is considered.

This book would be of value to anyone interested in the over-all medical-social aspects of abortion.

W. E. B.

MY SECOND LIFE

An Autobiography

By Thomas Hall Shastid, M.D. George Wahr, Publisher, Ann Arbor, Michigan, 1944. Price, \$10.00.

The author states that he wishes to put on record many varied, colorful and startling recollections of the old-time practice of medicine which he as a boy, youth and man had observed with his father, either as an apprentice in his office or riding by his side in the country on his rounds among the sick and, later still, in the many years of his own practice.

The book is too voluminous, containing 1,159 pages, to be read chapter by chapter, but particularly the older practitioner may find pleasure in reading parts here and there as he leafs through the volume. The reviewer found interest in reference to Dr. Carl E.

Black and the Prince doctors—old-time friends. Other readers might find enjoyment in other of the innumerable anecdotes found in the many chapters. Apparently Dr. Shastid has a penchant for collecting books, including his babyhood toy books, school and college textbooks, personal letters, diaries, etc., which he has incorporated in a unique library. From a medical standpoint, the author from his more than sixty-eight years of medical experience has developed an interesting story of patients and people in Pike County, Illinois, "with their many illnesses, their strange beliefs, their dramatic heartbreaks, high ambitions, good or bad motives, their love of their children and friends." He has faithfully recorded the growth of medicine in the middlewest from his boyhood to the present and finally leaves the impression that it takes all sorts of doctors to make a medical world.

O. J. F.

LIPPINCOTT'S QUICK REFERENCE BOOK FOR MEDICINE AND SURGERY

By George E. Rehberger, M.D. Twelfth edition. J. B. Lippincott Company, Philadelphia, 1944. Price, \$15.00.

This is the twelfth edition of this work, a volume of some fourteen hundred pages. The book consists of eleven parts dealing respectively with general medicine and surgery, gynecology, genitourinary diseases, obstetrics, skin diseases, diseases of the eye, diseases of the ear, diseases of the nose, diseases of the throat, orthopedics, and drugs. In each part diseases are presented in alphabetical order and a brief discussion of the etiology, diagnosis, and treatment of each condition is given.

This book is specifically designed as a quick reference book for the busy practitioner in an endeavor to consolidate modern knowledge. It provides a vast fund of information in a readily available manner. Considerable space is devoted to antiquated methods of therapy which have no place in modern therapeutics. Treatment by the sulfonamides and penicillin is presented but is given insufficient emphasis throughout the text.

D. H. K.

RADIATION AND CLIMATIC THERAPY OF CHRONIC PULMONARY DISEASES

Edited by Edgar Mayer, M.D., Assistant Professor of Clinical Medicine, Cornell University Medical College, New York City; Attending Physician, New York and Memorial Hospitals; Special Pulmonary Consultant, New York State Department of Labor. The Williams & Wilkins Company, Baltimore, 1944. Price, \$5.00.

This is an excellent book which covers a controversial subject in an approved manner. The content and subject matter in the book has been well collected and well arranged. The conclusions made are definite, concisely stated, and conservative as to therapeutic claims. This volume should prove very useful and enlightening to anyone at all interested in this subject.

J. C. P.

SOCIETY PROCEEDINGS

Calhoun County

The Calhoun County Medical Society honored Dr. Alva C. Norton of Rockwell City at a dinner meeting Wednesday, May 16, at 6:30 p. m. at the Masonic Hall in Rockwell City. The occasion was Dr. Norton's completion of fifty years in the practice of medicine. The program of the evening included music and addresses by Lt. Comdr. W. W. Stevenson, M.C., of Rockwell City, who told of his experiences in the Pacific for the past two years; R. D. Bernard, M.D., of Clarion, president of the Iowa State Medical Society, whose topic was One Month in Office; Palmer Findley, M.D., of Omaha, whose subject was A Man's a Man. Brief talks were also made by members of adjoining county medical societies who were guests for the evening. A desk set was presented to Dr. Norton by R. G. Hinrichs, M.D., of Manson, on behalf of the Society.

Iowa County

At a meeting of the Iowa County Medical Society held in Marengo Thursday evening, May 3, Dr. Thomas D. Clark of Victor presented a discourse on a new piece of medical equipment, the Clark Vein Stabilizer (Elbow), which he has designed, developed and perfected during the past three years.

Johnson County

The regular monthly meeting of the Johnson County Medical Society was held in Iowa City at Hotel Jefferson Wednesday evening, May 2, at 6:00 o'clock. Following the usual business meeting was the scientific program, which consisted of a discussion of The Present Status of Gonadotropic Therapy. Doctor Willis E. Brown, Assistant Professor of Obstetrics and Gynecology, spoke on the clinical aspects and Doctor James Bradbury, Research Assistant Professor in the Department of Obstetrics and Gynecology, discussed laboratory technic. Discussion was led by Doctor Warren Nelson of the Department of Anatomy and Doctor R. H. Flocks of the Department of Urology.

R. H. Flocks, M.D., Secretary

Louisa County

The Louisa County Medical Society will have a picnic at the Columbus Junction Chautauqua Park Thursday evening, June 14, at six o'clock, commemorating fifty years of practice for Dr. Elliott R. King of Letts and Dr. Frank A. Hubbard of Col-

umbus Junction. Instructions are to bring ladies, picnic lunch, and table service; the Society will furnish dessert and coffee. An interesting program is being planned for the evening.

L. E. Weber, M.D., Secretary.

Marshall County

The Marshall County Medical Society held its regular monthly meeting in State Center at St. Paul's Lutheran Parish House Tuesday evening, May 1, with physicians from Boone, Story and Grundy counties as guests. Approximately thirty-five physicians were in attendance. The guest speaker of the evening was Nathaniel G. Alcock, M.D., Professor of Urology at the State University of Iowa College of Medicine, who presented an illustrated lecture on Gross Hematuria: Its Clinical Significance.

Polk County

Members of the Polk County Medical Society held their regular May meeting in Des Moines at the Des Moines Club Thursday evening, May 10, in conjunction with the Mercy Hospital Staff Meeting. J. Arnold Borgen, M.D., Associate Professor of Medicine, University of Minnesota Graduate School, was the guest speaker. His topic for the evening was The Postwar Dysenteries as They Affect Us in the Northwest.

Pottawattamie County

The Pottawattamie County Medical Society met in Council Bluffs at Hotel Chieftain Tuesday evening, May 8, in honor of Dr. Mary L. Tinley of Council Bluffs and Dr. George C. Giles of Oakland upon their completion of fifty years in the practice of medicine. The doctors were presented with pins and letters of certification of their membership in the Fifty Year Club of the Iowa State Medical Society.

Scott County

The May meeting of the Scott County Medical Society was held at the Lend-A-Hand Club in Davenport Tuesday evening, May 1, at 6:00 o'clock. The guest speaker of the evening was Willis M. Fowler, M.D., of the State University of Iowa College of Medicine, who discussed Modern Treatment of Blood Diseases.

L. J. Miltner, M.D., Secretary

PERSONAL MENTION

Major Ralph H. Riegelman, M.C., formerly of Des Moines, has been awarded the bronze star medal for "meritorious achievement as a group surgeon of a heavy bomb group and station surgeon of a Station Hospital in the North African and European theaters of operation from September, 1942 to the present day. With no precedent to guide him and only limited personnel to work with, Major Riegelman established a most efficient Station Hospital to satisfy the many needs of an extensive combat operations program. By his diligence and devotion to duty he has successfully cared for the health of the group while operating from North Africa under adverse conditions. His skill, judgment, initiative, foresight and devotion to duty are most praiseworthy and reflect great credit upon himself and the armed forces of the United States."

Captain Paul A. Nierling, M.C., who practiced in Cresco before entering military service, has been awarded the bronze star medal for meritorious achievement in connection with military operations against the enemy at Luzon. Captain Nierling landed at Lingayen Gulf January 9 with the initial assault waves of the "Winged Victory" division.

Captain Louie Goldberg, M. C., has received the Air Medal and one Oak Leaf Cluster for service in air rescue of downed fliers. Prior to entering military service, Captain Goldberg practiced in Des Moines.

Captain Callistus H. Stark, M.C., received a medical discharge on April 15 after having been in military service since October, 1942. Captain Stark has returned to Cedar Rapids where he will resume his practice of medicine.

Captain William M. Vest, M.C., has returned to Iowa City after receiving his retirement from the Army Medical Corps.

Dr. Morris G. Beddoes, who practiced in Cascade for several years before entering military service, has recently returned from thirty-one months in the Army Medical Corps, nineteen of which were spent in the South Pacific, and has now located in Oelwein. Dr. Beddoes held the rank of Captain in the Army.

Dr. H. Vernon Madsen has announced the opening of his office in Waterloo for the practice of internal medicine, with special attention to the diseases of the chest. Dr. Madsen, who recently was a member of the staff of Henry Ford Hospital in Detroit, was formerly at the State Sanatorium at Oakdale.

Dr. Stanley R. Severson, son of Dr. and Mrs. George J. Severson of Slater, has announced the opening of an office in Ames for the practice of medicine. Dr. Severson, who was graduated in 1940 from the State University of Iowa College of Medicine, served nearly two years overseas as a Captain in the Army Medical Corps and received his discharge last fall.

Dr. Rudolph J. Ferlic, who has practiced in Lake View for the past five years, has opened an office in Carroll where he will continue the practice of medicine. Dr. Ferlic was graduated in 1935 from Creighton University School of Medicine.

Dr. Harry F. Thompson of Forest City has recently closed his office after having practiced medicine for fifty-one years, nearly forty of which were spent in Forest City.

Dr. Harry P. Smith, who has been Professor and Head of the Department of Pathology at the State University of Iowa College of Medicine since July 1930, has been appointed Professor of Pathology in the College of Physicians and Surgeons of Columbia University, effective July 1.

Dr. John H. Romine, who has been practicing in Stanhope for the past five years, has moved to Webster City and established an office there. Dr. Romine plans to spend Mondays and Fridays in his Stanhope office.

Dr. Max L. Durfee, Health Director at Iowa State Teachers College in Cedar Falls since 1939, has resigned to accept a position as Director of Health Service at the University of Oklahoma at Norman. He will assume his new duties on July 1.

Dr. John B. Thielen has announced the opening of an office in Fonda for the practice of medicine. Dr. Thielen, who has recently been practicing in San Francisco, was graduated in 1935 from the State University of Iowa College of Medicine.

DEATH NOTICES

Daily, Milton, of Sioux City, aged seventy-five, died May 8. He was graduated in 1895 from the Minneapolis College of Physicians and Surgeons, and at the time of his death was a life member of the Woodbury County and Iowa State Medical Societies.

Meyer, George R., of Marshalltown, aged seventy-four, died May 17 of cerebral hemorrhage. He was graduated in 1895 from the State University of Iowa College of Medicine, and at the time of his death was a life member of the Tama County and Iowa State Medical Societies.

CHANGE OF ADDRESS

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MALARIA IN RETURNING SERVICE PERSONNEL

COLONEL PAUL F. RUSSELL, M.C., A.U.S.

According to published reports the greatest medical problem thus far encountered by the armed forces overseas in World War II has been malaria.¹ The 1943 annual hospital admission rate was 95, with an August rate above 150 per 1,000 per year.² During 1944 a notable improvement was shown in spite of an even greater malaria potential as our forces pushed ahead in the Mediterranean and Southwest Pacific areas, and due in large measure to full-time malaria control organizations which were functioning effectively by the autumn of 1943.

These data have real importance to medical practitioners in the United States because they will be reflected in malaria relapses in service personnel on furlough or after discharge. Although malaria is promptly and thoroughly treated in the armed forces, with the most effective antimalarials known to science and in accordance with principles of therapy approved by the outstanding tropical medicine specialists of the country, yet this disease maintains its notorious relapsing character, especially when the infection is due to *Plasmodium vivax*. Furthermore, it is highly advantageous to the Army to enforce universal suppressive atabrine administration in malarious overseas areas. This undoubtedly tends to mask latent infections of *P. vivax*, so that one may expect considerable numbers of cases of relapsing malaria in returning servicemen, not only in those who have clear histories of primary attacks overseas but also in some who will experience their first clinical episode of malaria after discontinuing atabrine subsequent to arrival in this country.

The energetic standard treatment prescribed by the armed forces, widespread use of suppressive

atabrine, and a more limited natural tendency to recur, will reduce very greatly the numbers of cases of relapsing falciparum malaria in servicemen back from overseas duty. *P. malariae*, on the other hand, has stronger relapsing tendencies than *P. vivax* and may persist for many years as a latent infection. Fortunately, it has had a relatively low incidence. Malaria due to *P. ovale* is easily cured and seldom relapses. It is evident, therefore, that physicians will be encountering relapsing malaria, particularly *vivax* infections, to a greater extent during the next few years than ever before in modern practice.

There is also the possibility in some cases that returned servicemen at certain times may be gametocyte carriers, infectious to mosquito malaria vectors. This may lead to temporary heightening of endemic levels in some areas or to the establishing of new endemic foci in others, possibly with localized epidemics where conditions are favorable. Many areas of the South, where malaria used to be common, now report a low incidence although in some cases, at least, there appears to be a sufficient density of *Anopheles quadrimaculatus* to propagate the disease. It is known that this vector will transmit imported strains of *P. vivax*.³ In these communities an increase in gametocyte carriers might lead to higher incidence of cases. On the other hand, many northern areas have not had malaria for many years although the vector continues to be prevalent during summer months. It is possible that transitory endemic or epidemic foci may be established. The fact that epidemics of malaria are occasional in the North is shown by reports from New Jersey,⁴ Indiana,⁵ and Ohio.⁶

Getting,⁷ who has carefully reviewed this subject, concludes that the New England states, for example, are now relatively safe from extensive epidemics of malaria. A similar study was made by Beckman,⁸ who concluded that, as regards Wisconsin, the likelihood of malaria again becoming endemic, as it was some decades ago, "is considered extremely remote for the reason that the same con-

Chief, Parasitology Division, Army Medical School; Field Staff, International Health Division, The Rockefeller Foundation (on leave).

Prepared for presentation before the Ninety-Fourth Annual Session, Iowa State Medical Society, Des Moines, April 18 and 19, 1945, canceled upon request of the Office of Defense Transportation.

ditions which caused it to disappear at that period still prevail."

Although the danger of spreading imported malaria exists in the United States, it should not be exaggerated. The Public Health Service and various State and County Health Departments have done a great deal during the past ten years to reduce the malaria potential in this country. Definite plans have been and are being made to cope with the problem of returning service personnel.⁹ In particular the United States Public Health Service has formulated an "Extended Malaria Control Program," with intensive anopheline control where the disease is endemic and mobile units to deal with outbreaks elsewhere. There are available trained personnel and effective weapons. One may reasonably expect that the malaria situation will be kept firmly under control.

For the practicing physician, however, malaria in returned military personnel, and sporadic civilian cases appearing after blood transfusions, or contracted from mosquitoes which have fed on infectious servicemen, will present some diagnostic and therapeutic problems for the next decade. Clinicians may see the sporadic civilian cases while they are having typical primary attacks. But malaria in returned service personnel will be relapsing in type. There may or may not have been typical primary attacks. Atabrine suppressive treatment permits infection but then tends to keep it latent, sometimes for a year or longer.

The exact cause of a malaria relapse is unknown but possible stimulating factors which have been observed include anxiety, shock, fright, unusual excitement, fatigue, hunger, unusual exposure to cold and wetting, or to excessive heat, change of climate or altitude, alcoholic or venereal excess, traumatism, parturition, intercurrent illness, and surgical procedures. The symptomatology of relapses is the same as of primary attacks except that, as a rule, the disease becomes progressively milder.

It is not the purpose of this paper to present a complete clinical account of malaria but rather to note the problem of imported malaria and to make some comments on diagnosis and therapy. For symptomatology and general characters of malaria cause, cure, and prevention, standard textbooks may be consulted.^{10, 11, 12, 13}

DIAGNOSIS

Although most malaria cases present a characteristic triangular complex of intermittent fever, anemia, and splenomegaly, few diseases have such a wide range of clinical syndromes. Four points require introductory emphasis.

1. From the time of Hippocrates quotidian (daily), tertian (every other day), and quartan

(every third day) types of malaria have been recognized. However, it is by no means always possible to differentiate clinically between infections due to one or another of the plasmodia. Factors such as epidemic conditions, acquired tolerance, added infections with the same or another plasmodium, previous clinical and suppressive treatment, strain of plasmodium, and perhaps differing rates of development through still hypothetical exo-erythrocytic stages, all modify periodicity and host reaction, sometimes to the extent that classic sequences are unrecognizable.

2. Afebrile malaria, with malaise and parasitemia, is not unknown.

3. Where malaria is hyperendemic, or when dealing with patients returned from or through malarious areas, this disease must always be considered as a possible cause of symptoms, even if these be so far from typical as to suggest, for example, appendicitis, lumbago, or influenza. It is imperative under these conditions to examine a thick film for malaria parasites in every case, no matter what the primary complaint or diagnosis.

4. Relapsing malaria not infrequently complicates other diseases, parturition, and surgical procedures.

While one must avoid the pernicious habit of attributing to malaria almost any fever or bilious upset in a patient resident in or returning from the tropics, yet it is important to realize that in such patients it is the first duty of both physician and surgeon to establish the presence or absence of a malarial infection either as a single or as a complicating factor. It is essential to make certain that, when one disease has been diagnosed, malaria is not a hidden partner, or that, when malaria has been identified by a positive blood smear, the patient may not also present another infection as well. Amebiasis and malaria, for instance, are not infrequently found in the same patient in or from such poorly sanitated countries as India or China.

The only certain diagnosis of malaria is demonstration of the causative plasmodium. There are no established complement fixation, flocculation, skin reaction, or other serologic tests. Such tests are being studied and much could be said about them but here one can only say that they have limited value at present.

Thick smears should be examined as soon as possible and studied for at least five minutes before being read as negative. Thin smears require ten to fifteen minutes of study. If no parasites are found, smears should be repeated frequently in cases where any reasonable doubt exists. Blood films should be made even if they cannot be examined immediately.

One should check the reliability of technicians, since accurate blood film diagnosis requires considerable experience and devotion to duty. An experienced clinician will insist on the utmost care in the taking and examining of repeated thick and thin blood smears. Death may be the result of failure to make an early, accurate diagnosis.¹⁴

It is useful to know not only that parasites are present but also what species, in what stages, and at what density. It must be emphasized, however, that in falciparum malaria the density of parasites in a blood film may not be a safe index of the severity of the disease. One reads that, "Parasite densities should never be permitted to exceed 100,000 per cubic millimeter." This implies some safety at lower densities when as a matter of fact there is no safe level in falciparum infections. Deaths occur not infrequently in untreated patients with fewer than 0.5 per cent of cells infected, although severe infections are generally defined as those having 3.0 per cent or more of cells infected. Deaths also occur in cases where parasites have been so few in the peripheral blood that diagnosis has been difficult. It is a good plan to watch the blood smears but certainly one should keep the patient under very close observation regardless of the parasite count.

Suggestive findings, most constantly associated with malaria, with or without a positive smear are:

1. Fever, especially if there is characteristic periodicity. If the fever, or symptom complex without fever, recurs regularly every forty-eight or seventy-two hours, the disease is most probably malaria.

2. Anemia, hypochromatic in type, with a nearly normal or somewhat reduced leukocyte count (except during early stage of a rigor) but a high percentage of large mononuclear cells and perhaps some hematin-dotted leukocytes.

3. Enlargement and tenderness of the spleen with perhaps some tenderness in the gallbladder region. The spleen may be palpable a few days after onset of symptoms. Sometimes there is splenic tenderness before the organ is palpable.

4. Prompt response to atabrine or quinine therapy.

5. History of potential exposure to infection or of previous malaria within the preceding two years. Never accept at face value a patient's statement that he has not been bitten by a mosquito or that he has never had malaria. One must be equally careful about accepting a self-diagnosis of malaria. Manson used to say that in the majority of cases a diagnosis of malaria volunteered by a patient returned from the tropics is probably wrong. Most patients know that quinine or atabrine will cure an attack of malaria and so they

generally themselves take one or the other of these drugs for an attack. The disease is self-limited even without treatment. Frequently, it is not malaria but a fever not yielding to specific antimalarials and not self-limited which brings the chronic patient to a doctor.

A patient whose fever returns regularly every forty-eight or seventy-two hours, whatever else he may have, probably has malaria. But quotidian periodicity is more apt to be misleading than helpful and it should not be taken as necessarily an indication of malaria. Tuberculosis, syphilis, and amebic abscess frequently have quotidian fever, sometimes preceded by ague-like chilly sensations or frank rigor.

The principal diseases which should be mentioned in the differential diagnosis of malaria are the typhoid, scrub typhus, undulant, relapsing, dengue, yellow, and septic fevers, amebiasis with liver abscess, filariasis, leishmaniasis, meningitis, tuberculosis, syphilis, influenza, dysenteries, kala-azar, schistosomiasis, and trypanosomiasis.

The coma of malaria may simulate that of heat stroke, cerebral hemorrhage, uremia, alcoholic and opium poisoning.

For the purposes of this paper it will suffice to discuss the differential diagnosis of leishmaniasis, relapsing fever, filariasis, and amebiasis with liver abscess.

Visceral leishmaniasis or kala-azar is common in some theaters of war. It is generally recognized by its persisting irregular fever of long duration, resistant to antimalarials. Malarial fever is characteristically intermittent while that of kala-azar is usually continuous. In kala-azar there is often a large spongy spleen. Marked weakness and emaciation characterize chronic kala-azar but not malaria. In kala-azar the leukopenia appears early and rapidly becomes marked. Positive diagnosis by finding the *Leishmania* organisms of kala-azar by sternum or by spleen puncture is frequently possible. Spleen puncture is not justifiable for routine diagnosis in malaria but only in suspected cases of kala-azar. After the third month, the aldehyde serum test is usually positive in kala-azar. In this test, one or two drops of commercial formalin are added to 1 cubic centimeter of clear serum. Within a few minutes, if positive, the serum becomes solid or semisolid like the white of a boiled egg.

Relapsing fever, with its sudden onset and splenomegaly, may at first be confused with malaria and can only be separated with certainty by blood smear examination. The spirochetes are usually fairly easy to find in a blood smear during the febrile attack. In time the typical relapsing fever

curve and the lack of response to antimalarials are differentiating points.

The diagnosis of filariasis¹⁵ is made with certainty when microfilariae or the adult worms are demonstrated. But sometimes it is necessary to depend on history and clinical findings. Exposure to the disease in an area where it is known to be endemic is an essential point in diagnosis. The only cases so far reported in service personnel have been contracted on islands of the South Pacific. Intervals between first exposure and initial symptoms range from three or four months to a year or longer. The most significant signs of filariasis are characteristic lymph node enlargement, involvement of the genitalia, and especially retrograde lymphangitis. Symptoms vary but one commonly sees fatigue and drowsiness, perhaps some blurring of vision and photophobia, mild generalized muscular pain, and low grade fever. Neurotic symptoms are common and there may be severe mental depression. The swellings are moderately tender. Symptoms and signs develop and regress rapidly. Leukocytosis and eosinophilia may be present. Skin and complement fixation tests for filariasis may be helpful occasionally, in conjunction with other findings.

Osler once remarked that few patients with amebic abscess of the liver escape at least one course of specific antimalaria therapy before the correct diagnosis is made. Enlargement of the liver, rigidity of the right rectus muscle, variable fever, pain increased by turning to lie on the left side, leukocytosis of 9,000 to 20,000, with 70 to 80 per cent polymorphonuclear cells and no increase in mononuclears, quotidian sweating in the evening—all suggest the possibility of liver abscess. There may or may not be tenderness. Sometimes pressure on the thorax over the liver area will cause pain. Clinical response to emetine treatment is another diagnostic point. Confirmation by x-ray examination, or by an exploratory puncture may be possible.

TREATMENT

Treatment regimes for malaria have exceeded malariologists in numbers. No series of cases has seemed too small, no bedside experience too limited to add to the mountainous heap of notes on new ways to cure malaria.

Reasons are obvious. In the first place, malaria is one of the most important diseases in the world today. Second, there is no treatment which will prevent relapses in a percentage of patients. Third, some cases will certainly proceed to recovery on any medication or without medication. Finally, the term malaria refers to a complex of diseases caused by one or more of four known species of plasmodia, each consisting of little known but

probably numerous strains which within the same species certainly vary in virulence and in response to therapy. Under these circumstances it is natural that search for a better antimalarial continues and that clinicians without sufficient experience or who are not statistically educated frequently claim significance in such medication as nonspecific infusions or colloidal gold.

One is both diffident and confident about discussing the treatment of malaria. While average treatment regimes prevailing today, and outlined below, are not satisfactory in that they permit relapses, yet it should be noted that malaria case mortality among Army personnel receiving this therapy has been consistently very low. The standard Army practice in the treatment of malaria is undoubtedly the best in the world today and will be the basis of the following paragraphs.¹⁶

The day is not yet here, although doubtless coming, when it will be proper to advocate specific therapeutic regimes for individual species (and perhaps strains) of plasmodia. At present, despite variety of types of critical malaria, it is practical for the purpose of treatment to consider each type under one or the other of two categories:

A. Malaria cases in which oral medication is possible from onset of attack.

B. Malaria cases in which oral medication is not at first possible or indicated.

MALARIA TREATED BY ORAL MEDICATION

As a general rule, any malaria patient who can swallow and retain an antimalarial drug should be treated orally, not parenterally. Exceptions are:

1. Patients with cerebral or algid malaria.
2. Patients suffering from hemorrhagic falciparum malaria with epistaxis, rectal bleeding, or petechial hemorrhages.
3. Patients with severe gastro-intestinal symptoms.
4. Patients who have hyperpyrexia or from whom two successive blood smears show that three per cent or more of erythrocytes are parasitized with *P. falciparum*.
5. Patients who retain medication but do not absorb it and, although diagnosis is confirmed by blood smears, do not respond to the antimalarial therapy but remain seriously ill. Such patients and any others who cannot swallow or retain medication should be treated parenterally as described in the next section.

Atabrine—Formerly, the usual treatment of malaria with atabrine consisted of three tablets a day for five days (3 x 0.1 gram x 5 totalling 1.5 grams). Sometimes this regime was initiated by giving quinine sulfate 10 grains three times a day for two or three days before starting the course of atabrine. It now appears that, analogous to

sulfonamide therapy, it is desirable to obtain a relatively high plasma level early in the treatment. The following regime has been adopted by the Surgeon General of the Army and has had the approval of the National Research Council:

1. First Day: Atabrine hydrochloride 0.2 gram (3 grains) and sodium bicarbonate 1 gram (15 grains) by mouth, with 200 to 300 cubic centimeters of water, sweetened tea, or fruit juice every six hours for five doses. This is a total of one gram of atabrine (15 grains) during the first twenty-four hours.

2. Second to Seventh Days: Atabrine hydrochloride 0.1 gram (1½ grains) three times a day with or immediately after meals.

By this regime the patient receives a total of 2.8 grams of atabrine during one week's treatment, after which he may return to his normal activities. If a relapse occurs it should be treated as a new infection.

Quinine—At present it seems desirable to conserve quinine for intravenous use and for treatment of those individuals who are intolerant to atabrine. It also seems wise for the same reason to recommend a short course of quinine, when used, instead of the once popular eight weeks standard treatment. (This called for 10 grains of quinine by mouth three times a day for three or four days and then once a day for eight weeks. There is still a difference of opinion as to the relative virtues of this prolonged versus a short course of quinine.)

The regime recommended by the Surgeon General of the Army when atabrine is not available or tolerated is as follows:

1. First and Second Days: Quinine sulfate 1.0 gram (15 grains) by mouth three times a day after meals.

2. Third to Seventh Days: Quinine sulfate 0.6 gram (10 grains) three times a day after meals.

This provides a total of 15.6 grams of quinine in seven days.

Totaquine—This preparation may be used instead of quinine sulfate and will give practically the same results. Totaquine is a standardized mixture of cinchona alkaloids and one need have no hesitancy about using it in cases where oral quinine is indicated. It contains not less than 7 and not more than 12 per cent of quinine, not less than 70 per cent nor more than 80 per cent total crystallizable cinchona alkaloids. This combination of cinchona alkaloids has an action on plasmodia and on clinical malaria which closely parallels that of quinine but it is given only by mouth.

There may be somewhat greater frequency of gastro-intestinal disturbances following totaquine but in general the reactions are the same as those

mentioned for quinine. Totaquine supplies are being manufactured chiefly for civilian use, since quinine stocks have been largely reserved for military use.

Plasmochin—There is a small margin of safety between therapeutic and toxic doses of plasmochin. Some observers believe that this drug, if given as a follow-up treatment, will reduce the percentage of relapses. This appears to have been true in certain series of cases but not in others. Many observers now believe that plasmochin should not be given in routine treatment. The National Research Council and the Surgeon General of the Army have adopted the latter view.

The usual course of plasmochin consists of 0.01 gram (1/6 grain approximately) by mouth three times a day after meals for four days. Sodium bicarbonate 1 gram (15 grains) should be given with each dose of plasmochin. Fluid and sugar intake should be liberal. Careful observation should be maintained for appearance of toxic reactions so that plasmochin may be discontinued at once if any appear. It is an average but not universal opinion that while quinine and plasmochin may be given together, atabrine and plasmochin should not be given concurrently.

MALARIA REQUIRING INITIAL PARENTERAL TREATMENT

Whenever malaria is complicated by disorders such as intense nausea, persistent hiccup, vomiting, severe intestinal colic, marked diarrhea, epistaxis, rectal bleeding, petechial hemorrhages, hyperpyrexia, collapse, delirium, or coma, immediate parenteral treatment is indicated. Patients whose blood smears show that 3 per cent or more of the erythrocytes are infected with *P. falciparum* and those who have a positive blood smear but do not respond to oral therapy, so that they remain seriously ill at the end of the third day of treatment, should also receive parenteral therapy.

Parenteral Atabrine—There is a consensus that atabrine should not be given intravenously because sudden and sometimes fatal toxic reactions may occur. But atabrine functions well when given intramuscularly and is not toxic in the usual doses. The following procedure is recommended by the Surgeon General of the Army with concurrence by the National Research Council:

1. Atabrine dihydrochloride 0.2 gram (3 grains) in sterile distilled water 5 cubic centimeters injected intramuscularly into each buttock with the usual precautions (total 0.4 gram, or 6 grains). If necessary, one or two similar doses of 0.2 gram (3 grains) may be given at intervals of six to eight hours. As soon as oral administration is feasible atabrine dihydrochloride should be given by mouth, as previously described, in such doses

as to give a total by both routes of 1.3 gram (19½ grains) in the first forty-eight hours, followed by 0.1 gram (1½ grains) three times a day with or immediately after meals for five days (total 2.8 grams in seven days). If no atabrine for oral use is available, a complete course of oral quinine or totaquine may be given when the need for intramuscular atabrine has passed.

Parenteral Quinine—While many observers still believe that to give quinine intramuscularly is good practice, others equally observant call it malpractice. However this may be, when quinine is indicated for malaria with complications the most direct and effective route is intravenous injection. The following procedure is recommended by the Surgeon General of the Army and the National Research Council:

Give quinine dihydrochloride 0.6 grams (10 grains) in sterile physiologic saline 300 to 400 cubic centimeters (minimum 200 cc.) injected intravenously with the usual precautions, cutting down on a vein if necessary. *The injection should be given slowly.* This treatment may be repeated in six to eight hours if required. When the patient can retain oral medication, a complete course of atabrine, quinine, or totaquine may be given. Totaquine is not given parenterally.

In an emergency when neither quinine nor atabrine dihydrochloride is available for parenteral use, quinine sulfate may be given per rectum 1 or 2 grams (15 to 30 grains) mixed with starch paste, thin enough to run through a rectal catheter. One or two doses given in this way will not generally cause serious local irritation. The drug is rapidly absorbed.

TOXICITY

Quinine—Although quinine is a drug of considerable safety, it may have certain ill effects. Adequate therapeutic dosage is usually accompanied by more or less cinchonism as evidenced by tinnitus, dizziness, deafness, tremor, and palpitation. Large doses may in rare cases cause amblyopia, or permanent deafness. Some individuals are allergic to quinine and when such a history is suggested it is wise to avoid the use of quinine, since quinine allergy may be very disturbing. It is also better to use atabrine for malaria during pregnancy, since quinine is believed by some to predispose to abortion.

Plasmochin—Symptoms of plasmochin toxicity, frequently seen after minimal therapeutically effective dosages, include abdominal pain, nausea, vomiting, headache, dizziness, and drowsiness. Hemoglobinuria, cyanosis, circulatory collapse, jaundice, and acute yellow atrophy of the liver are less common but very dangerous possible side effects of plasmochin.

Atabrine—The usual symptoms of atabrine toxicity are anorexia, salivation, nausea, vomiting, diarrhea, with colicky abdominal pain, and, occasionally, headache. There may be some elevation of temperature. In a few cases transient mental symptoms have been reported, usually in patients with a psychopathic background. There is evidence that an existing diarrhea may be intensified. It should be stressed, however, that not many drugs have had wider or more continuous use by so many individuals with so few reports of more than transitory gastro-intestinal disturbance. Tinting of the skin is seen in 2 to 3 per cent of cases treated clinically. This is definitely not jaundice and the ocular conjunctiva is rarely tinted. The coloring is due to deposition of the atabrine dye in the skin. It disappears a month to six weeks after treatment.

TREATMENT OF RELAPSES

The treatment of relapses is naturally of special interest because no available therapy will prevent a significant percentage of cases from relapsing.

Such suggestions as the addition of arsphenamines, sulfanilamides, or intravenous adrenalin to treatment regimes, or the highly theoretic and at times dangerous recommendation that a relapse be not treated, in order to permit development of immunity, have not been proved to have any practical value and are not recommended by most observers.

It is average opinion that relapses should be treated like new infections.

GENERAL TREATMENT

Patients with clinical malaria in regions where Anopheles vectors are active should be kept in a screened ward and under mosquito nets at night. They should remain in bed during treatment until temperature has been normal for forty-eight hours. Fluid intake should be maintained at three to four liters each twenty-four hours, intravenously if necessary. Salt loss should be made up as indicated. Chills require hot water bags and blankets; high fever is relieved by cold sponges and packs, avoiding antipyretics. The barbiturates may be used as sedatives. Blood transfusion may be indicated in pernicious cases which have caused severe anemia.

Careful observation of falciparum infections should be maintained for signs of circulatory collapse or cerebral involvement, which should be dealt with promptly. It is necessary to guard the violent type of cerebral malaria from self-injury, such as jumping out of a window.

Vomiting may be treated by usual measures but if persistent leads to acidosis which should be combated by intravenous injection of 5 per cent

glucose in physiologic saline 200 to 400 cubic centimeters, repeated if necessary and supplemented by 1 milligram of thiamine hydrochloride for each 25 grams of glucose.

Convalescence is aided by a generous high vitamin and high meat protein diet, supplemented by ferrous sulfate 0.6 gram (10 grains) three times a day after meals for a month.

SOME SPECIAL POINTS

When competent, prompt examination of blood smears is possible, malaria treatment should be given only to patients urgently ill or on report of positive smear. The habitual administration of antimalarials in all fevers of the tropics is not a safe practice. Repeated negative smears in the absence of clear symptomatology indicate the need for further clinical study.

Close supervision of oral therapy is necessary since patients may seek to evade drug treatment.

Patients with parasitemia but no clinical symptoms should be put to bed and given a standard treatment. There should be no delay in falciparum cases. Standard treatment should not be repeated until a two weeks' interval has elapsed.

Patients without parasitemia or clinical symptoms should not be treated even if latent malaria is suspected from the history. There is no evidence that inter-relapse therapy in such cases has any influence on subsequent relapse rates.

Certain personnel of the armed forces who have recently had malaria, or have come from hyper-endemic areas, are put on suppressive atabrine during leave of absence, furlough, or sick leave, or for periods of special training or to carry out a special mission during which a relapse would be highly inconvenient. The usual daily tablet of atabrine is advised and the individual is warned of the necessity for regularity of dosage. Such suppressive atabrine may be desirable in certain circumstances for civilian patients.

Patients with malaria parasitemia are not given furlough, sick leave, or returned to duty or discharged from service. The minimum requirement following an attack is freedom from symptoms and two negative thick films with a two-day interval.

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RINGWORM OF THE SCALP DUE TO MICROSPORON AUDOUINI

Report of Cases in Dubuque, Iowa

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An epidemic of tinea capitis in New York City caused by microsporon audouini and involving several thousand children has been reported as spreading for more than a year.^{1,2} In Chicago, Mitchell³ states that a similar epidemic is spreading by leaps and bounds. Because of the proximity of Dubuque to Chicago—180 miles—all dermatoses in which a tinea infection was suspected were examined under the Wood's light. The eyelashes and brows were always included.⁴ While this procedure involved additional effort it was felt that to overlook a case, which may easily happen when examining with ordinary light, would provide a focus for the spread of the infection in this locality. On January 20, 1945, the extra effort put forth was rewarded.

CASE REPORTS

Case M. M., a white female sixty-six years of age, was seen for a dermatitis involving the left side of the face. It was the "cancer fear" that brought this patient in for examination and not the severity of the dermatitis. The latter was barely detectable with ordinary light. Inspection showed a circinate area of faint erythema measuring 2 centimeters in diameter. There were no other morphologic signs to distinguish the lesion. Under the Wood's light this area showed scattered lanugo hairs which fluoresced a bright green. A further search of the scalp and face showed no additional areas of involvement. The microscopic features of the fluorescent hairs were typical of a microsporon infection.

These findings made it imperative to trace the epidemiology. There had been no contact with household or barnyard animals. It was learned that two months prior to examination a grandson

Now located in Evansville, Indiana.

from Chicago had come to live with the patient. She casually mentioned that the child had a stubborn case of dandruff that she had been treating with various tonics and salves. That same afternoon the child was brought in for examination.

Case T. W., a white male eight years of age, was given the routine dermatologic examination. At the anterior portion of the part of the hair was a circinate lesion measuring one centimeter in diameter. It showed an insignificant scaling and only the faintest degree of erythema. Under the Wood's light the hairs in this area fluoresced a bright green and the extent of the lesion was seen to measure four centimeters. At the posterior portion of the hair part was a patch of fluorescent hairs measuring two centimeters in diameter. This portion of the scalp under ordinary light appeared normal. The microscopic features of the hairs were the same as noted in the hairs obtained from the grandmother. Cultures were secured and for confirmation a number of fluorescent hairs were sent to J. H. Mitchell, M.D., in Chicago. The patient was excused from school and was instructed to wear a sterile white cloth helmet day and night. About two weeks later Mitchell³ wrote that the microscopic and cultural findings were typical of a *microsporon audouinii* infection.

MEASURES TO PREVENT SPREADING

This child had lived in Dubuque two months. The grandmother was fairly certain that he had not played with any children in their homes and she was positive that no children had played with him in her home. He had visited the local movie but stated that he kept his leather helmet on during the show. Since the seat backs were of wood in this theater, the possibility of spread from this source seemed unlikely. A check with the barber revealed that the prescribed sterile technic was followed in the shop. The children in his classroom were examined. Six of them showed in the occipital region of the scalp a pea sized spot of green fluorescence. The latter did not involve the hairs.

These youngsters were excused from school and the mothers instructed to make for them cloth helmets to be worn day and night. The next day they were examined again. Hairs and scrapings were obtained from the fluorescent areas. The latter were then painted with 25 per cent silver nitrate and the mothers were asked to manually remove the hairs from the darkened areas. Each area was then painted with 10 per cent acid salicylic in colloidin. The microscopic examinations were negative and when no fluorescent areas were observed at the end of a week, these children were permitted to return to school.

TREATMENT

Case M. M. was treated by roentgen ray epilation. Two weeks later a few fluorescent hairs were observed and they were manually removed. Another examination at the end of a month was negative. During the time of determining the type of *microsporon* infection in case T. W., another focus of infection appeared in the right occipital region. This occurred in spite of the daily use of ammoniated mercury 10 per cent. The technic of therapy recommended by Lewis^{5,6} was used in case T. W.

COMMENTS

The prompt recognition of this case has in all likelihood prevented the additional spread of ringworm of the scalp due to *microsporon audouinii* in this locality. This case would have been overlooked if it had not been routine to observe suspected tinea infections under the Wood's light. Since epidemics of this infection involve children of grade school age, it would seem expedient to acquaint the school nurses with the technic of using the Wood's light. The examination of each child on entering school in the fall would do much to uncover and aid in the control of this infection. Certainly those in charge of orphanages and children's homes should be required to examine all children entering or leaving the institution.

Barbers should be notified that children presenting a patchy type of dandruff need an examination by a physician. Reif⁷ has recommended that seat backs in theaters be equipped with removable covers, something similar to the towels used in Pullman cars. These could be sterilized and changed daily, thereby providing a further means of prevention.

It is incumbent upon physicians, especially the pediatrician, ophthalmologist and general practitioner, to aid in the detection of these infections. The time involved should not be too great because the office nurse can be acquainted with the routine of the Wood's light examination.

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nurses, for their cooperation, and also the Burdick Corporation who designed a Wood's diagnostic light with special facilities. The base of this light is dome-shaped, 10x6 inches, and contains the transformer and a foot switch. Also in the base is a red pilot light to denote that the light is burning. The light is about the size of a large grapefruit and is detachable from the goose-neck support. The latter can be raised or lowered to any desired position. The light has a wood handle through which passes a cord eight feet long which connects to the transformer in the base. This design permits using the light attached to the standard or holding the light in the hand by means of the handle. These features allow an inspection of the scalp, eyebrows, eyelashes, external nares, external auditory canals, the axillae and trunk, perianal, genital and pubic region as well as the extremities including the digits.

CLINICOPATHOLOGIC CONFERENCE

CHRONIC HEMOLYTIC ANEMIA WITH PAROXYSMAL NOCTURNAL HEMOGLOBINURIA

MAJOR JOSEPH E. FLYNN, M.C., A.U.S.

CASE REPORT

Abstract of Clinical History: A white male, forty-eight years of age, was admitted to the hospital October 12, 1942. The entrance complaints were weakness and anemia since 1925. At about the time these symptoms occurred, the patient passed red urine on several occasions, especially in the morning. Because of the weakness and anemia he had been hospitalized three times but did not know what diagnoses were made. He stated that in 1939 a splenectomy was advised. Prior to operation a blood transfusion was given because of a severe anemia. The reaction following this transfusion was so marked that the patient refused splenectomy. There was no history of melena, hematemesis, or ascites. He had occasional abdominal and lower back pain associated with darkening of the skin.

Family History: There was no familial history of anemia or of jaundice.

Past History: Not remarkable.

Physical Examination: The patient was pale and thin. There was nerve deafness bilaterally. Examination of the fundi revealed pale disks. There was no lymph node enlargement. The lungs were negative. There was a soft systolic murmur at the apex of the heart. The lower edge of the liver was just palpable on deep inspiration and had a sharp edge. The spleen was firm and extended four fingerbreadths below the left costal margin, moving freely with respiration. There were no petechiae.

Army & Navy General Hospital, Hot Springs, Arkansas.

Laboratory Data: The icterus index was 30. On admission the urinalysis revealed no albumin, no sugar, no casts, and no red blood cells. The specific gravity was 1.024. On two occasions the first morning urine specimen was reddish brown. These urines gave a four plus benzidine reaction. Microscopically, no red blood cells were found. The urinary urobilin varied from 1:20 to 1:80 concentration. There was no bile present in the urine. A bone marrow biopsy indicated a normoblastic response (Fig. 1). There was a marked

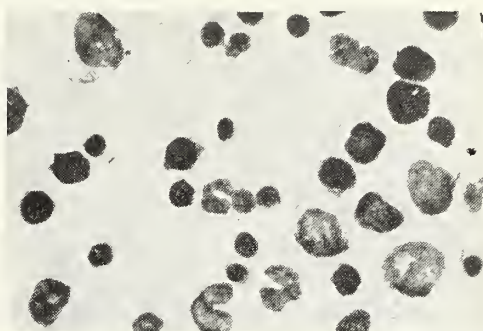


Fig. 1. Photomicrograph of bone marrow showing normoblastic response. A.M.M. Neg. 81670 (x 1500).

reticulocytosis. The red blood cell count varied from 2,800,000 on admission to 1,900,000. The hemoglobin ranged from 6 grams to 10 grams (H & H). The white blood cells varied from 1,500 to 10,000 with a normal differential. The blood platelets were normal. The blood smear indicated anisocytosis and poikilocytosis. No abnormal cells were present. The coagulation time was three to five minutes. The bleeding time was two minutes. The cuff test was negative for petechiae. The blood prothrombin by the Smith bedside method was 90 per cent of normal. The Donath-Landsteiner tests were negative, even when the hemoglobinuria appeared. The red blood cell fragility tests on three occasions showed identical results with hemolysis beginning at 0.42 and ending at 0.32. A test for sickling of the red blood cells was negative after incubation of the blood for twelve hours. The blood group was type A. Bile was present in the stool. No ova or parasites were seen in the stools. The Wassermann and Kahn tests were negative. The icterus index ranged from 5 to 30. The total blood proteins were 6.9 grams per cent. The blood nonprotein nitrogen was 32 milligrams per 100 cubic centimeters. The blood sugar was 107 milligrams per 100 cubic centimeters. Gastric analysis curves were normal.

X-ray Examination: X-ray examination of the chest was negative. A flat plate of the abdomen was negative except for an enlarged spleen extending almost to the umbilicus (Fig. 2). A roent-

genogram indicated an increase in thickness of the inner and outer tables of the skull over the vertex.

An electrocardiogram showed premature auricular contractions, appearing at the time of hemoglobinuria. In addition, there was evidence of mild myocardial damage, probably on the basis of anemia.



Fig. 2. Photograph of x-ray plate of abdomen showing enlarged spleen.

Progress: From the time of his admission on October 12, 1942, to November 1, 1942, the patient complained only of weakness. On November 1 he had abdominal pain and tenderness in the region of the spleen. The splenic area was very tender on palpation. The red blood cell count on this date was 2,000,000. The white blood cell count was 1,500. On the morning of November 2 the patient passed dark blue-green urine. The urine contained hemoglobin and urobilin. The tenderness over the spleen persisted. The patient remained afebrile. He again passed smoky urine on the morning of November 7. The urine was positive for hemoglobin. On both occasions the dark color of the urine was marked in the morning but had cleared by afternoon. On another occasion the patient stated he had passed black urine in the morning, but urinalysis in the afternoon of the same day showed no hemoglobin. On November 7 the red blood cell count was 2,220,000, the hemoglobin was 60 per cent, and the white blood cell count was 2,700 with a normal differ-

ential. The patient was transferred to the Surgical Service on November 7 for splenectomy. He was typed and cross matched for transfusion. On the morning of November 9 splenectomy was performed under spinal procaine-nupercaine anesthesia, supplemented with open drop ether. The spleen was found to be markedly adherent by vascular adhesions to the diaphragm on the left side, as well as to the gastrosplenic and colic omentum, and even to the posterior abdominal wall. It was impossible to expose the vascular pedicle of the spleen and it was only with great difficulty that the splenectomy could be accomplished. As soon as the splenic vessels were ligated, the patient was given a transfusion of 500 cubic centimeters of whole citrated blood. Another transfusion of 500 cubic centimeters of whole citrated blood was given before the patient was removed from the operating room. Alkali therapy was given before and after operation. The patient stood the procedure fairly well and was returned to the ward in fair condition. There were no postoperative complications the first day. The temperature ranged from 100 to 101.6 degrees. The pulse rate varied from 128 to 140. The respirations remained at 24. The patient was given intravenous glucose on his first postoperative day and after that took adequate fluids by mouth until November 14. A Wangenstein tube was inserted and allowed to remain in place until the morning of his second postoperative day. The abdomen during this time remained flat with no distention. The red blood cell count on the first day postoperatively was 3,670,000. The patient began to pass flatus on his second postoperative day and good intestinal peristalsis could be elicited. On the second postoperative day it was noted that the patient was definitely more jaundiced. This increased in severity until his death. On November 12 his icterus index was 132. The patient continued to pass dark smoky urine. Every specimen showed hemoglobin. A platelet count on the first postoperative day was 220,000. On November 12 the platelets were 340,000. On November 13 (fourth postoperative day) the patient's temperature rose to 103 degrees. The jaundice had continued to increase in intensity. Tests for hemoglobinemia were strongly positive. The abdomen remained flat. The patient was given a soapsuds enema with good results. The stool was dark brown in color. On November 14 his temperature rose to 105 degrees. The pulse varied between 120 and 140. He was given parenteral fluids consisting of intravenous glucose in saline and subcutaneous infusion of 2.5 per cent glucose in saline. He began to vomit on November 13. The vomitus consisted of dark brown coffee-ground material. The stomach was lavaged and

about 300 cubic centimeters of this material obtained. The vomiting continued intermittently throughout the remainder of his course. On November 14 the red blood count was 3,200,000; the patient was, however, in shock and undoubtedly there was considerable hemoconcentration. On the morning of November 15 the patient became irrational. The respirations increased and then became Cheyne-Stokes in type. The temperature rose to 105.2 degrees. He expired on November 15.

Clinical Diagnosis: Anemia, hemolytic, severe.

Surgical Report: The spleen weighed 840 grams. Microscopically, there was fibrosis, congestion, and hemosiderosis.

NECROPSY ABSTRACT

Externally, the only finding of note was marked icterus. There was a generalized acute peritonitis with 600 cubic centimeters of brown odorless pus. On culture the pus yielded a *Streptococcus viridans*. A small abscess cavity was found in the omentum near the operative site. The abscess had ruptured into the peritoneal cavity. There was a bilateral acute pleuritis. The lungs were normal in weight, but contained red-brown pneumonic infiltrates, some of which had central areas of softening. The spleen had been removed. The remnant of the ligated splenic vein contained a thrombus. The thrombus had propagated into the portal vein. A considerable space existed between the thrombus and the wall of the portal vein so that there was not a significant degree of portal obstruction. Near the operative site, the tail of the pancreas contained a few scattered foci of necrosis. The right kidney weighed 155 grams. The left kidney weighed 165 grams. Both kidneys were brown in color. A small pale infarct was present in the lower pole of the left kidney. There was generalized moderate arteriosclerosis.

Microscopically, the lung showed many of the small blood vessels, both arteries and veins, to be occluded by recent thrombi. Many of the pneumonic infiltrates contained central areas of necrosis. In the liver a small branch of the portal vein contained a recent thrombus. There were a few small scattered focal areas of necrosis in some of the hepatic lobules. These areas of necrosis were infiltrated by polymorphonuclear leukocytes and lymphocytes. There was a striking deposition of brown pigment in the renal tubules (Fig. 3). Some of the epithelial cells of the convoluted tubules contained so much pigment that the nuclei were obscured. The lumina of many of the tubules were likewise filled with brown pigment. The pigment gave a positive Prussian blue reaction. Many of the small veins and arteries of the kidney contained recent thrombi.

Thrombi were also seen in the small vessels of the pancreas and thyroid.

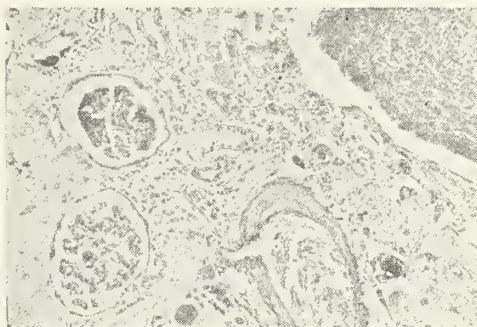


Fig. 3. Photomicrograph of kidney showing hemosiderosis. The pigment is deposited both in the tubular lumina and in the epithelium. A portion of a vein containing a thrombus is seen in the upper right corner. A.M.M. Neg. 81671 (x 250).

Anatomic Diagnoses:

1. Anemia, hemolytic, chronic, Marchiafava-Micheli type.
2. Splenectomy (surgically removed November 9, 1942).
3. Abscess, small, omental, left upper quadrant.
4. Peritonitis, generalized, severe (*Streptococcus viridans*), secondary to rupture of omental abscess.
5. Ileus, secondary to peritonitis.
6. Thrombosis, remnant of splenic vein with propagation into, but incomplete occlusion of, the portal vein.
7. Necrosis, tail of pancreas, slight, secondary to trauma at time of splenectomy.
8. Pleuritis, bilateral, acute.
9. Pneumonia, lobular, confluent.
10. Thromboses, liver, lungs, kidneys, pancreas, thyroid, recent.
11. Hemosiderosis, renal, bilateral, marked.
12. Infarction, kidney, small.
13. Arteriosclerosis, generalized, slight to moderate.
14. Icterus, severe.

COMMENT

The severe anemia, icterus, hemoglobinemia, splenomegaly, normoblastic bone marrow, normal erythrocytic fragility, the passage on several occasions of a first morning specimen of smoky or dark colored urine that was strongly positive to the benzidine test but which did not contain red blood cells, and the finding of multiple thromboses and renal hemosiderosis at autopsy make the diagnosis of chronic hemolytic anemia with paroxysmal hemoglobinuria reasonably certain.

The immediate cause of death was peritonitis due to the rupture of the small omental abscess. The high icterus index prior to death reflected

a massive postoperative intravascular hemolysis. A number of factors undoubtedly operated in the production of this hemolysis. It seems likely that the peritonitis played a rôle. The exaggeration of hemoglobinuria in this disease during infections has been stressed.¹ Another factor was the alkali therapy given before and after the splenectomy. Ham² has reported that the use of alkali salts in paroxysmal nocturnal hemoglobinuria is often complicated by a severe hemolytic episode, on either their withdrawal or during their administration. The blood transfusion given during the operation was presumably likewise important since transfusions in this disease are often followed by hemolytic reactions. The hemolytic reaction is not one of blood group incompatibility.³

DISCUSSION

The clinical syndrome of chronic hemolytic anemia with paroxysmal nocturnal hemoglobinuria was first described in 1911 by Marchiafava and Nagari⁴ and in 1931 by Micheli.⁴ Since then approximately 44 cases have appeared in the literature.

This disease is much more common in males than in females. Clinically the symptoms are those of anemia, abdominal pain, jaundice, and the passing of dark or smoky urine, usually on arising in the morning with the urine clearing during the remainder of the day. The anemia is either normocytic or macrocytic in type. There is a reticulocytosis. The blood bilirubin is elevated and gives chiefly the indirect van den Bergh reaction. In addition, Ham² has stressed the constancy of the finding of hemoglobinemia at all times, regardless of whether or not there is a hemoglobinuria. The hemoglobinemia can be tested for by spectrophotometric methods. Ottenberg and Fox⁵ have shown that the threshold for urinary excretion of hemoglobin is variable. Hemoglobinuria is usually present with a blood level of 130 to 150 milligrams of hemoglobin per 100 cubic centimeters. It does, however, often occur with levels of 30 milligrams or above.² The stools and urine contain increased amounts of urobilinogen. The presence of hemoglobin in the urine can be tested for either with the spectrophotometer or can be considered present when the urine gives a strongly positive benzidine test with no red blood cells seen microscopically. In contrast to congenital hemolytic icterus the red blood cell fragility test and the mean corpuscular diameter are normal. Often there is a leukopenia and a slight to moderate thrombocytopenia.

The most notable contribution since the original reports by Marchiafava and Micheli was made by Ham.² His observations indicated the essential abnormality in this disease was intrinsic in the red

blood cells. Although the abnormality was intrinsic in the red blood cells, it was dependent upon a thermolabile factor in the plasma or serum. This factor is present in the serum and plasma of normal subjects as well as in patients with paroxysmal nocturnal hemoglobinuria. Ham pointed out that the abnormal hemolysis could be demonstrated in the laboratory by the use of acidified plasma or serum within ranges having no effect on red blood cells of normal subjects or on the red blood cells of patients with congenital hemolytic anemia, hemolytic sulfonamide reactions, acute hemolytic anemia of Lederer, sickle cell anemia, Cooley's anemia, cold paroxysmal hemoglobinuria, hypochromic anemia, and anemia associated with cirrhosis of the liver. In other words, Ham found that chronic hemolytic anemia with paroxysmal nocturnal hemoglobinuria differed from other types of hemolytic anemia in the presence of an erythrocytic hemolytic susceptibility to acidulation of fresh human serum or plasma. Ham likewise devised two simplified methods of testing for hemolysis.*

If a positive result is obtained with these tests, a control should be set up for the Donath-Landsteiner reaction to rule out a paroxysmal hemoglobinuria to cold.

Ham postulated that the hemoglobinuria and hemoglobinemia were associated with an alteration of the acid-base balance during sleep.

The pathology of this disease is well represented by the above case. The morphologic alterations found at autopsy are similar to those reported by Scott⁶ and Ham.⁷ The changes consist of multiple thromboses, renal hemosiderosis, splenomegaly, hyperplasia of the bone marrow, and focal areas of necrosis in the liver. The histologic findings are not pathognomonic of the disease.

There is considerable difference of opinion in the literature concerning splenectomy in the treatment of this serious disease. The consensus, however, is that splenectomy is of no value in most cases. As pointed out previously, Ham² warns against the administration of alkali salts. The contraindication to the use of acid salts is obvious.

*In the first method, 5 cc. of defibrinated whole blood is equilibrated in an ordinary tonometer for fifteen minutes at room temperature with a gas mixture containing 10 per cent carbon dioxide and 90 per cent oxygen. The suspension is then centrifuged. Blood from a patient with paroxysmal nocturnal hemoglobinuria shows from 5 to 30 per cent hemolysis after such equilibration, whereas blood from a normal subject should show no hemolysis or only a trace. In the second method, 10 cc. of defibrinated blood is centrifuged for removal of serum; the erythrocytes are made to a 5 per cent suspension in salt solution, and two samples of 1 cc. each are measured into small tubes and the salt removed after centrifugation. The packed erythrocytes of one tube are suspended in 1 cc. of unaltered serum; those of the other tube are suspended in a mixture containing 0.95 cc. of serum and 0.05 cc. of $\frac{1}{10}$ normal hydrochloric acid (pH, approximately 6.5); these are incubated for 1 hour at 37° C. and centrifuged. In paroxysmal nocturnal hemoglobinuria the tube containing unaltered serum may show no hemolysis or lysis of from 1 to 10 per cent; the tube containing acidified serum will show a greater degree of hemolysis, varying from 2 to 30 per cent. There should be no significant hemolysis in either tube for blood samples from normal subjects or from persons with other diseases."²

Transfusions are frequently dangerous since they may be followed by hemolytic episodes. In a few instances marked clinical improvement was noted following such a hemolytic reaction. Hoffman and Kracke¹ have studied the effects of the sympathomimetic and parasympathomimetic stimulants on this disease. They found that the hemoglobinuria was lessened by the sympathomimetics and prevented by the parasympathomimetics. Neither, however, decreased the intravascular hemolysis. Conservative measures² such as good diet, moderate activity, avoidance of infections and administration of iron can be used.

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1945 MISSISSIPPI VALLEY MEDICAL SOCIETY MEETING CANCELED

The 1945 meeting of the Mississippi Valley Medical Society, scheduled to be held at St. Louis in September, has been canceled because of war restrictions. Plans are being made to hold the 1946 meeting in the Jefferson Hotel in St. Louis, September 25, 26, 27.

MICHIGAN MEDICAL SERVICE INCREASES BENEFITS

Increase of benefits to subscribers with no increase in rates has been announced by Michigan Medical Service. The additional benefits were made effective April 1, and were enabled by the unusually strong financial position of the Michigan plan. Nearly 800,000 subscribers are entitled to the new benefits.

Among the liberalizations are: Removal of the previous limit of \$150 for surgical service provided under the Schedule of Benefits and performed at the same time or for the same purpose; shortening of the waiting period for maternity care from ten months to nine months; elimination of the waiting period

on other obstetric services; and provision for emergency surgical services for doctors in hospital outpatient departments.

Continued high public interest in Michigan Medical Service was cited by R. L. Novy, M.D., President.

"As a result of a promotional mailing a short time ago, more than 400 groups wrote in requesting an opportunity to enroll," Dr. Novy said. "Our enrollment representatives are offering the service to these groups as fast as possible."

Michigan Medical Service is sponsored by the Michigan State Medical Society. Its companion organization, Michigan Hospital Service, also instituted an increase in benefits on April 1, but an increase in subscriber rates was necessary to provide for the hospital service increase.

MISSOURI MEDICAL SERVICE PLAN LAUNCHED

Missouri Medical Service, the nonprofit medical service plan through which Missourians may voluntarily enroll to obtain medical and surgical care in hospitals, was launched Monday, March 12, according to Dr. Carl F. Vohs, St. Louis, president of the new medical plan and chairman of the Medical Economics Committee of the Missouri State Medical Association. The plan is sponsored by the state medical association and local county medical societies throughout Missouri, comprising 3,250 doctors.

Enrollment in the plan will be offered through Blue Cross of St. Louis. The two organizations are separate, but considerable economy will be effected through management of the medical and surgical care plan by the Blue Cross.

At the onset, enrollment in the plan will be open only to the 480,000 employees of firms in Missouri which are members of the Blue Cross. Those belonging to Blue Cross will now have available a complete program for care while in hospitals.

SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 2:45 p. m.

WSUI—Thursdays at 3:00 p. m.

July 4-5 Poliomyelitis

Charles B. McIntosh, M.D.

July 11-12 The Care of Summer Emergencies

John B. Thielen, M.D.

July 18-19 Summer Skin Troubles

James W. Young, M.D.

July 25-26 The Romances of Cardiology

Daniel J. Glomset, M.D.

STATE DEPARTMENT OF HEALTH

Nathaniel L. Biering

Botulism in the United States

AN OUTBREAK OF BOTULISM

Five people—a proprietor of a small hotel, his wife and three boarders—partook of a noon meal consisting of boiled sausage, potatoes, home-canned string beans, bread, butter, and coffee. The beans, canned by the cold-pack method, were noted to be foamy and faintly rancid on opening the Mason jar in which they were contained. The beans were rinsed thoroughly with cold water and served without reheating. One of the boarders detected an odor to the beans resembling that of limburger cheese and ate none of them. The other four persons partook of the beans in varying amounts; all developed a fulminating type of illness and were dead within less than forty-eight hours.

One of the patients, a man forty-six years old, always robust and healthy, had eaten a generous helping of beans. The onset of the illness occurred early the next morning, with vomiting and dizziness. When seen by the attending physician in midmorning, the patient showed a slight ptosis of one eyelid; the pupils were dilated moderately and reacted poorly to light. There was complaint of diplopia which had started early that morning. The patient had great difficulty swallowing a dose of castor oil. Shortly afterward, speech was markedly affected; the tongue was swollen, dry, and heavily coated. Prostration was profound. The temperature and pulse were normal and remained so until 3:00 p.m. when the pulse rate increased to 140 per minute. Administration of castor oil and of enemas was without effect. The patient died of respiratory paralysis about thirty hours after having eaten the beans and seven hours after weakness kept him in bed.

The three other persons in this group developed acute illness like that described, and died of respiratory paralysis about sixteen to twenty-two hours after onset.

This fatal outbreak, diagnosed as botulism, occurred in South Dakota in September of 1936. A graphic account is presented in an article by Hunter, Weiss and Olson¹.

"In review of these cases, the striking symptoms consisted of general weakness, diplopia, paralysis of the tongue and pharyngeal muscles, early ileus, unequal bilateral mydriasis that did not remain of uniform intensity, failure of pupils to react to light, blepharoptosis, restlessness, apprehension and death from respiratory paralysis. The temperature was normal in all cases throughout the disease, the breath foul, the pharynx dry and covered with tenacious mucus, the pulse normal until just a few hours be-

fore death. There was not enough gastro-intestinal disturbance in any case to be noteworthy, and there was an entire absence of pain throughout their sickness."

By culturing the incriminated string beans anaerobically in marble seal dextrose broth, *Clostridium botulinum* was isolated in pure culture. Feeding of the beans to guinea pigs and performance of protection tests with use of antitoxin, revealed the organisms to be *Clostridium botulinum*, Type A.

BOTULISM IN THE UNITED STATES, 1899-1943

A comprehensive report, compiled in 1944, has been received from Karl F. Meyer, M.D., Director, Medical Center, George Williams Hooper Foundation, San Francisco, California, summarizing data regarding outbreaks of botulism as notified and investigated in the United States during the forty-five year period, 1899-1943.

NUMBER OF OUTBREAKS, CASES, AND TOTAL FATALITY RATE

Outbreaks for the forty-five year period numbered 404, with a total of 1,125 cases. Deaths were 732, making a case fatality of 65 per cent.

DISTRIBUTION BY STATES

States reporting the largest number of outbreaks were California, Washington, Colorado, Oregon, New York, New Mexico, and Montana. Altogether, 39 states reported the occurrence of one or more epidemics.

An epidemic of botulism (five cases, three deaths) occurred in Iowa in 1919. Smoked ham and home-canned salted pork were the vehicles of infection.

KINDS OF FOOD

In the series of 404 epidemics of botulism in the United States, string beans caused 91, corn 40, spinach or chard 21, beets 18, asparagus 16, and olives 14. In addition, 46 other kinds of fruit and vegetables were causative of from one to nine outbreaks. Thirty-one were due to contaminated meat, twenty-seven to fish and seafoods, and seven to milk and milk products. Although a few of the contaminated food products were commercially canned or preserved, the great majority were home canned.

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The JOURNAL of the
Iowa State Medical Society

ISSUED MONTHLY

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DENNIS H. KELLY, Associate Editor.....Des Moines

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DR. OLIVER J. FAY DIES

On June 2, 1945, at Des Moines, Dr. Oliver J. Fay died at the age of seventy. Inevitable as is death and as full and well rounded a life as Dr. Fay had lived, nevertheless the hearts of a great many people are saddened because of his passing on. Not only will his death be mourned by the medical profession of his own state, but by that of the nation as well, for his friends and acquaintances among physicians were nationwide.

"O.J.," as he was affectionately known and called by his associates, was one of the country's outstanding surgeons. His fine physical appearance and his forceful personality, together with his sure surgical knowledge and expert technical skill, were attributes which fitted him to an unusual degree for his chosen specialty. Patients were inspired by these qualifications to have explicit confidence in him, and it was inevitable that he should build an enormously successful practice.

But it is not our purpose in these columns to review Dr. Fay's career as a surgeon, his accomplishments in the field of surgery, or the many honors which were bestowed upon him by his profession. This has been admirably done elsewhere in this issue by his life-long friend, Dr. Walter Bierring. Rather would we like to address these brief remarks of remembrance to him as the friend we all knew and loved so well. For above all else "O.J." had a faculty for making friends, both in and out of the profession. He liked people and liked to be with them. It is safe to say that he was personally acquainted—often intimately—with more members of the Iowa State Medical Society

from all parts of the state than anyone else in the Society. This was particularly in evidence at the time of the annual sessions when his silvery-white hair served to identify him usually in conversation with one or with a group of his cronies. If he was ever absent from a meeting of the House of Delegates, we are not aware of it. What Oliver J. Fay has contributed to the Iowa State Medical Society, to the House of Delegates, and to the standards of medicine of Iowa throughout the years of his guiding influence, we will not attempt to evaluate. We know it has been great and we know that no annual session for many years to come will be quite the same without him.

Another organization dear to Dr. Fay's heart was the local Library Club in Des Moines. By tacit consent of the other members, the seat at the south end of the table was always left for "O. J." From this special dais scarcely a meeting passed at which he did not engage in the oftentimes rather sprightly discussions that took place following dinner or after the paper of the evening. We surmise there'll be many a moist eye because of that vacant chair when next the Library Club resumes its meetings in the fall.

And then, too, Dr. Fay will long be remembered as the special friend of the younger men in the profession. It was to him that they turned first for advice and counsel. No problem was too trivial or too complicated to fail to merit his full attention. His broad knowledge of medical matters, both local and national, acquired through his many years of active participation in the practice of medicine, plus his mutual friendliness and kindness and his willingness to help, resulted in the unburdening of many a troubled mind on his broad shoulders. Not only will he be missed because of his wise counsel in the medical organizations of his community and state, but even more will he be missed by the many who had come to lean heavily upon him for aid in their individual problems.

These are but a few of the things, "O. J.," by which we shall like to remember you. There are many others. You will always hold a unique place in our hearts and in our affections, for there can never be another O. J. Fay.

We are proud of you for the contributions you have made to the advancement of the medical profession throughout your long years of faithful service, and for the honor which you have brought to that profession. We are grateful to you for the friend you have been to us. We wish you could have remained with us longer, but "God's will be done." All of us join in saying to you, "Well done, thou good and faithful servant."

WAGNER-MURRAY-DINGELL BILL INTRODUCED IN CONGRESS

Senators Wagner and Murray on May 24 introduced in the United States Senate bill S. 1050, entitled "The Social Security Amendments of 1945." Representative Dingell introduced a companion bill, H. R. 3293, in the House on the same day. The following letter, addressed to the editor, has been received from Senator Wagner:

On Thursday, May 24, I introduced with Senator Murray a bill, S. 1050, entitled: "The Social Security Amendments of 1945". The bill provides for "the national security, health and public welfare". Representative Dingell of Michigan introduced a companion bill (H. R. 3293) in the House at the same time.

I am forwarding the bill itself, and a copy of my speech in the Senate for your information and use.

I particularly invite your earnest study of the provisions of the bill relating to health. There is absolutely no intention on the part of the authors to "socialize" medicine, nor does the bill do so. We are opposed to socialized medicine or to State medicine. The health insurance provisions of the bill are intended to provide a method of paying medical costs in advance and in small convenient amounts.

During the formulation of this bill, we have benefited greatly from the constructive advice and suggestions of practicing physicians, and of physicians in clinical and teaching positions. Their constructive suggestions have resulted in changes in the bill which we presented in the last Congress. Undoubtedly other changes will be made before this bill is enacted into law. We wish to have it known that we invite constructive suggestions from the medical profession.

In addition, members of the medical profession will be given full opportunity to voice their opinions in open hearings when the bill is considered in Committee.

I hope that you will print this letter in your JOURNAL and that you will join me in urging the medical profession to undertake an earnest study of the actual provisions of the bill. In this way you can help immeasurably in avoiding misunderstanding and misinterpretation of the legislation and in stimulating physicians and medical and hospital organizations to come forward with constructive suggestions and advice.

There are many who will find it difficult to reconcile compulsory health insurance for 135,000,000 people and fees to be paid physicians for their services being decided by Government, with Senator Wagner's statement that his bill does not socialize medicine. Let us make no mistake about it, however, American Medicine has a real fight on its hands this time if it is to maintain the freedom of action it has known for so many years and during which time the national standards of health have been brought to a level far exceeding that of any other great nation. No one realizes better than do physicians themselves that there are still many desirable objectives to be obtained in the

extension of medical services for the benefit of all the people. Medicine has been and is even now putting forth every effort to explore and find the most suitable means of securing those objectives. Progress can be made in this direction only as fast as people and physicians are educated in new methods. This is the sure democratic approach to the problem facing us. Given ten years, which is the time Government indicates it would take to realize the objectives of its proposal, Medicine, with Government help where needed, under the private enterprise system can also go a long way toward achieving the same objectives, although its methods would obviously be different.

But Government groups such as Senator Wagner's and the Children's Bureau apparently do not have the conception that Government's function, at least as it affects Medicine, is to aid private initiative. On the contrary, their concept appears to be that the medical profession should be used to carry out the Government's program. A guiding principle of these groups which is being heard more and more frequently is that if education of the nation's children is a function of Government, then also is the health of the children. Under this system the proposal would be to build hospitals and health centers in every community corresponding to schools. Physicians would be hired by public funds, just as are teachers, to reside in these hospitals, and to them would come all the people regardless of economic status for all of their health needs.

Later, in subsequent editorials, we shall point out the steps that are already being taken in this direction. In the meantime we would urge each of our readers to obtain a copy of Senator Wagner's speech to the Senate upon the occasion of introducing his bill to that body, and also to obtain a copy of the bill itself, S. 1050. Study each of them carefully, and then write your conclusions to your Congressman and to Senators Wilson and Hickenlooper. The votes of our Congressmen will decide the course of medical practice in America for many years to come. You may be sure they'll hear the other side of the story—plenty. Let's let them hear ours!

PROGNOSIS IN SPINA BIFIDA AND ENCEPHALOCELE

Deep pessimism has characterized the thinking of the medical profession concerning the congenital abnormalities, spina bifida and encephalocele or cranium bifidum. A recent survey by Ingraham of 546 cases seen at the Boston Children's Hospital during the last twenty years necessitates some revision of thought concerning the prognosis of these conditions.

In the series of 546 patients there were 84 cases of encephalocele, and the remaining were various types of spina bifida, 279 of which were myelomeningocele. Of the group of eighty-four cases with encephalocele, fifty-nine patients had adequate follow-up studies. Of these, fifty-two underwent operation, seventeen of whom subsequently died. Twenty-one (34 per cent) of the fifty-nine surgical patients are alive, well, and entirely normal.

In the group of 462 patients with spina bifida adequate follow-up studies were complete in 401 of the cases. Of this group 234 (58 per cent) are alive. The remainder have died of a variety of causes. Surgery was performed in 188 and twenty more are awaiting operation, so that 208 (52 per cent) were suitable for operation. The immediate operative mortality was 12 per cent. Of the surviving operated patients sixty are normal and sixty-one are suffering from a mild neurologic disability, all of whom are leading a normal existence. Thus about 30 per cent of the patients may look forward to a life unhampered by any significant incapacity resulting from their anomaly.

The age of choice for operations in infants is between twelve and eighteen months. If, however, the sac is broken and uninfected, or if it is so thin that rupture is imminent, immediate operation is indicated. The presence of progressive hydrocephalus constitutes a contraindication to operation. The presence of neurologic disability does not necessarily constitute a contraindication. The cord is fixed at the site of the defect and in the process of growth traction is exerted upon the cord, resulting in progressive disability.

From this study one may conclude that instead of an utterly hopeless prognosis in the case of encephalocele or spina bifida one may anticipate that one-third of the patients may grow up to be normal adults and lead normal lives.

numerable acts of heroism of the doctors, nurses, and corpsmen, and in their exhausting efforts on behalf of the sick or wounded soldier. We have great pride in the medical department organization which has projected medical care to the front line and has worked out a system of evacuation of the wounded which has saved thousands of lives. We have a justifiable pride in American Medicine which has provided the Army with doctors of high caliber and proper training, who possess a scientific knowledge that has made the above favorable comparison possible.

MINUTES OF MEETINGS OF STATE SOCIETY
OFFICERS AND COMMITTEES

Board of Trustees Meeting
June 17, 1945

The Board of Trustees of the Iowa State Medical Society met in the central office Sunday morning, June 17, 1945, with the following persons present: John I. Marker and Walter A. Sternberg, trustees; R. D. Bernard, R. L. Parker, J. C. Parsons, L. R. Woodward, F. A. Hennessy, J. E. Reeder and J. W. Billingsley.

Dr. Marker was elected chairman of the board and given authority to sign routine bills; minutes were read and approved and bills were authorized; publication of the roster of members in the July Journal was approved; publication of a new constitution and by-laws was authorized; and the salary for the new secretary was determined.

Dr. Marker explained that it would be necessary to appoint a successor to Dr. Fay on the Board of Trustees and that he had invited those present to advise with the other two trustees about the selection. The matter was discussed, each physician stating his views, and the trustees then went into executive session and appointed Dr. L. R. Woodward of Mason City to fill the unexpired term.

The meeting adjourned at noon.

ARMY FIGURES DEPICT MEDICAL
PROGRESS

Comparative figures of World War I and World War II are most illuminating and offer convincing proof of advance in the science of medicine and in the efficient organization of the medical department of the Army.

Brigadier General Hugh Morgan is authority for the following comparative figures:

	World War I	World War II
Death rate in wounded.....	8.1%	3.3%
Meningitis mortality.....	38.0%	4.0%
Pneumonia mortality.....	28.0%	0.7%
Dysentery mortality.....	1.6%	0.05%
Annual death rate per 1,000 for all diseases in the Army, excluding surgical conditions.....	15.6%	0.6%

We have an overwhelming pride in the in-

PREVALENCE OF DISEASE

Disease	May '45	April '45	May '44	Most Cases Reported From
Diphtheria	9	18	11	Black Hawk, Allamakee, Linn
Scarlet fever	171	239	684	Polk, Woodbury, Clayton
Typhoid fever	0	0	0	.....
Smallpox	0	4	5	.....
Measles	303	174	911	Woodbury, Palo Alto, Polk
Whooping cough ...	18	14	27	Des Moines, Dubuque, Allamakee
Brucellosis	10	9	8	Benton, Black Hawk, Crawford
Chickenpox	275	347	233	Dubuque, Des Moines, Story
German measles ...	6	4	28	Boone, Calhoun
Influenza	0	0	3	.....
Malaria	181	2	2	Clinton, Page, Woodbury
Meningococcus				
Meningitis	7	15	18	Fayette, Clinton
Mumps	505	418	363	Dubuque, Des Moines, Black Hawk
Pneumonia	10	9	27	Polk, Des Moines
Poliomyelitis	1	0	0	Lyon
Tuberculosis	83	64	156	For the state
Gonorrhea	250	228	160	For the state
Syphilis	104	105	178	For the state

President's Page

The 1945 edition of the Wagner-Murray-Dingell bill has been presented to the Congress. The authors admit it is a bigger and better bill, and we are forced to admit that it is bigger, more inclusive, and therefore promises many new problems for the medical profession. The bill is about twice the size of the previous bill; it offers many more benefits; and the tax deductions have been lowered from six to four per cent, making one wonder even more about the soundness of the financial reasoning behind the bill.

Senator Wagner in his letter to the Editor of the Journal of the American Medical Association states, "We are opposed to 'socialized medicine' or to state medicine." That makes it unanimous. Indications are that the bill will not be rushed through Congress; that there will be plenty of time for analysis and study by local medical groups (Senator Wagner himself has invited this); and to date press comment generally has not been over-enthusiastic about the bill. As a matter of fact, most press comment, some of it labor, has been critical. We unite with Senator Wagner and the American Medical Association in urging you to give the bill earnest study and consideration.

The American Medical Association must of necessity spearhead the opposition to the bill. The proposal that a definite plan for medical care be presented to Congress by the American Medical Association is excellent and should be acted upon without delay. However, in Iowa, defeat of antagonistic legislation has been accomplished by the united efforts of the membership of the State Society. Defeat of the Wagner bill is in your hands. It is as much your job as it is of the Council on Medical Service and Public Relations.

The most potent force in opposition to the bill is a successful medical service plan which provides, without government control, a stepping stone to broad medical and surgical coverage for American citizens who need this protection.

The Iowa medical service plan is *your* plan. It has the cooperation and support of the two successful Blue Cross plans in the state. Sale of policies and operation of the plan will start early in July. Consequently, during the next four weeks each councilor district will hold a meeting at which the many details of the plan will be explained and the physicians asked to enroll as participating physicians. Do not miss your district meeting. It will give you the opportunity to unite with other doctors in providing constructive action against the Wagner-Murray-Dingell bill. The bill can be defeated if you do your part. Sign up as a participating physician and make the movement in Iowa unanimous.

R. D. Bernard, M.D.

President, Iowa State Medical Society.

Transactions of the House of Delegates

Iowa State Medical Society, Ninety-Fourth Annual Session

April 18 and 19, 1945

Wednesday Evening, April 18, 1945

The first meeting of the 1945 session of the House of Delegates of the Iowa State Medical Society, held at the Hotel Fort Des Moines in Des Moines, was called to order at 8:30 o'clock Wednesday evening, April 18, 1945, by the President-Elect, Dr. R. D. Bernard of Clarion, who presided as speaker.

The Speaker: The train on which our reporter is supposed to arrive is reported about two hours late. Rather than wait, we will start the meeting at this time. May I have a motion to that effect?

It was *moved* that the meeting start. *Motion was seconded and carried.*

The Speaker: I should like to have a motion to set aside the by-laws, Chapter IV, Section 2, so that we can make this a legal meeting.

Dr. Hennessy: I would like to tell you the reason for this particular type of meeting. When the order limiting meetings to fifty persons was first issued by the Office of Defense Transportation, we applied for permission to have our regular meeting. This was denied. Then we applied for permission to have the House of Delegates meeting and were refused that privilege. We were told we could have a meeting if it did not exceed fifty in number. Our attorney said it was not necessary to have a meeting of fifty, that our Executive Council had power under our constitution to go ahead. I as President did not want this, and neither did any of the other officers, and so we tried to figure out a method of having a meeting as representative as possible of the whole society. We believed that the best method was to have three delegates selected by each councilor district, together with the officers of the Society. This gave us a fairly good distribution of physicians, and accounts for the reason we are restricting the attendance to fifty persons. The attorney for the State Society assures us that while on the face of it it might seem illegal to limit the attendance, it would be upheld in the courts because we were following the government edict. There would be no doubt as to the legality of the meeting should it be questioned. Mr. Speaker, I *move* that we set aside Chapter IV, Section 2, of the by-laws to permit conformity with the government ruling on conventions, and substitute therefor the allowance of three votes (in addition to officers) from each councilor district.

Dr. Fay: I *second* the motion.

Dr. Suchomel: As you recall, the letters coming from the central office stated first that there would be three delegates seated from each councilor district. This was followed by a bulletin saying that if any delegate would be in Des Moines you could not refuse to seat him. As a result of that I made reservations to attend. The councilor of the seventh district called me by phone to ask if I were coming to this meeting and I said yes. He said that would simplify things and he would appoint three delegates. On March 30 another bulletin came out stating only three delegates certified by the councilor would be seated for the simple reason that it was the desire of the Iowa State Medical Society to get away from the idea that Polk and adjacent counties would dominate the meeting. That is what is stated in the bulletin. Considering that Linn county with 100 members is without a representative at this meeting, I would like to know why the change was made. Was there any legal counsel?

Dr. Hennessy: I will try to answer that. You mention one of the factors. I had replies from a few counties and some of the councilors mentioned the fact that should there be more than fifty seated, it would enable the counties adjacent to Des Moines who would not require hotel accommodations (an ODT ruling) to come to Des Moines. There was the objection that some counties and some districts would have far more representatives with that ruling. Originally we thought about proxies. The question was raised, and we were told that there was no occasion to have them since our by-laws provided for alternates. Consequently that thought was out of line. Limiting the meeting to fifty would give each councilor district fair representation. There was no desire on the part of your officers to limit the attendance, but after all

we were limited by the government and we were trying to be fair to everyone.

Dr. Suchomel: You are talking about the by-laws. The constitution gives every society a vote in this House of Delegates. If the government ruling works one way it works another.

Dr. Boice: The three representatives were elected by the delegates in each district.

Dr. Housholder: I would like to clarify the situation a little. I called the counties and proposed we meet and have an election. The answer was invariably the same, that they were too busy to meet and preferred that I appoint the three representatives. I did. Dr. Suchomel's statement is correct. When I talked to him, I had the bulletin saying we could not refuse to seat any delegate. He said he was coming anyhow. I am making this statement, not in self defense, because I would not want you to think I tried to engineer anything. The fact that we did not have an election was the delegates' own choice.

The question was called for.

The motion was put to a vote and carried.

Dr. Hennessy: I *move* that the representatives chosen by each district and certified by the councilor to the central office shall be the legal voting delegates for the district.

The motion was seconded by Dr. Reeder, put to a vote and carried.

Roll call showed the following delegates present:

First District: O. H. Banton of Charles City, F. A. Hennessy of Calmar, and P. E. Gardner of New Hampton.

Second District: L. R. Woodward of Mason City, C. A. Newman of Bode, and R. M. Wallace of Algona.

Third District: W. R. Brock of Sheldon, M. T. Morton of Estherville, and T. L. Ward of Arnolds Park.

Fourth District: R. N. Larimer of Sioux City, C. F. Obermann of Cherokee, and J. R. Dewey of Schaller.

Fifth District: L. F. Hill of Des Moines, E. M. Kersten of Fort Dodge, and E. B. Bush of Ames.

Sixth District: E. E. Magee of Waterloo, A. D. Woods of State Center, and J. W. Billingsley of Newton.

Seventh District: J. W. Dulin of Iowa City and J. C. Painter of Dubuque.

Eighth District: L. A. Coffin of Farmington, W. C. Goenne of Davenport, and L. C. Howe of Muscatine.

Ninth District: C. A. Henry of Farson, D. L. Grothaus of Delta, and E. C. McClure of Bussey.

Tenth District: A. W. Brunk of Prescott, I. K. Sayre of St. Charles, and J. H. Gasson of Bedford.

Eleventh District: Kenneth Murchison of Sidney and G. V. Caughlan of Council Bluffs.

Officers: M. C. Hennessy, President; R. D. Bernard, President-Elect; F. L. Knowles, First Vice-President; Robert L. Parker, Secretary; J. A. Downing, Treasurer; L. L. Carr, C. H. Cretzmeyer, J. B. Knipe, J. E. Reeder, E. F. Beeh, J. C. Hill, H. A. Housholder, C. A. Boice, R. C. Gutch, J. G. Macrae, Councilors; O. J. Fay and W. A. Sternberg, Trustees. The two delegates to the American Medical Association, T. A. Burcham and T. F. Thornton, were also present. Total registered for the session—47.

Dr. Housholder: There seem to be only two delegates from the seventh district. There being no other delegates present, I nominate Dr. Suchomel as the third delegate.

Dr. Suchomel was duly seated, and the total registration stood at 48 persons.

It was *moved* and seconded that the minutes of the Friday morning session, 1944, be approved as published in the July, 1944, JOURNAL. *Motion was put to a vote and carried.*

The Speaker then called upon Dr. M. C. Hennessy for his president's address. (This, under the title of "One Man's Opinion" was published in the May, 1945, issue of the JOURNAL of the Iowa State Medical Society.)

The Speaker: Thank you, Mr. President. In the past we have used the various state committees as reference committees. Other states have different systems; some have reference committees patterned after the American Medical Association; others use special committees or state committees. Reports made by officers have been referred in various ways. I have liked our method, but with our

skeleton meeting, would like to appoint a committee to study the President's address and bring back a report on it tomorrow. I hereby name Dr. Lee Hill, Dr. Sternberg and Dr. Billingsley to act as a reference committee on that report.

... Dr. Hennessy then assumed the chair and called upon Dr. Bernard for his address as president-elect . . .

President-Elect's Address

It has been a privilege to have served the Iowa State Medical Society during a period when economic and public health problems have been an ever increasing factor in the practice of medicine. The family physician not only cares for the sick and injured and advises and counsels with the young and old in his community, but he must devote no small part of his time to medicine in its broader meaning—medicine as part of our great national economy. We have ceased to be a scientific group isolated in homes, offices, and hospitals. That position has been challenged and we must accept the challenge, admit and *correct* our faults, and put our economic house in order with the same remarkable skill we have always shown in improving and maintaining our scientific standards.

This Society has been among the most liberal minded and progressive in the country. There has been remarkable unity behind each progressive and successive step toward economic progress. The basic science law and the prenatal and premarital laws were enacted early and have proved most satisfactory. During this same period our postgraduate instruction for the physicians throughout the state has kept pace with this development in other states. Our cancer and tuberculosis committees have done an excellent job and our industrial health committee deserves great credit for the work it has done.

We owe a great responsibility to our wives. Slowly but surely they are building a strong Auxiliary that should have the support of every doctor in the state. Their handicaps are many: war work, Red Cross, church work, other auxiliaries (not to mention bridge) and home work with perhaps a grandchild or two to compete for their time and energy. An expansion of new county units is planned for the coming year and Mrs. Westly and her officers will need your active support.

Climaxing four years' effort of a few members and an intensive study this past year by a special committee, we are about to launch our greatest effort toward economic readjustment—a medical service plan. I bespeak the same wholehearted support of this project that you have given the earlier efforts of your society. Progress must be slow and not all parts of the state can be served at once, but given your active cooperation with, and tolerance toward the officers in perfecting a sound organization, and your willingness to assist in its application to your community needs, it will succeed beyond your expectations.

The suggested changes in the committees within our state organization will provide a much needed readjustment to present administrative demands. I have known this readjustment was needed for three or four years and heartily concur with President Hennessy in the proposals his committee has made.

As I look into the next twelve months, I feel that we must be prepared to meet the challenge of the radicals in the administration and in Congress to take the control of the practice of medicine away from the medical profession; we must oppose all efforts toward government control of medical education and the resulting lowering of educational standards; we must hold within bounds the inevitable expansion of the Public Health Service and the insidious efforts to glamorize "Government medicine" to the young graduate who is undecided which road to follow.

Our responsibilities do not end there. The practice of scientific medicine must keep pace with modern demands; the "old" men on the home front cannot ignore the progress medicine and surgery are making today. The rapid changes in the hospital situation concern us greatly. We do not want Federal control of the hospitals in Iowa and I feel you will give me one hundred per cent support in opposing all efforts in this direction. The shortage of nurses is all too apparent. I believe the nurses are capable of solving this problem if given an opportunity. It is our duty to cooperate with them in training more nurses with adequate educational standards free from government control. Not the least of our responsibilities this next year will be the discharged men in the service. Our Postwar Planning Committee must take the leadership in assisting in every way possible the returning Iowa doctors, but it is the duty of every doctor in the state to render all possible assistance to the returned enlisted man, especially those discharged with mental disabilities.

Should it be your pleasure to accept the recommendations of the committee on committee changes, an opportunity will be given the Society to establish a much needed closer relationship with the various health agencies throughout the state. We deplore the conditions that exist in many of our state institutions, have done little to change these conditions, and yet we are the one group in the state that should be most vitally interested.

During the years I have been active in Society work I have had unusual support and cooperation from the officers and members. I beg you to be tolerant to the mistakes I am bound to make and to continue the fine spirit of loyalty which you have always shown.

... Dr. Bernard then resumed his place as Speaker of the House...

The Secretary: I neglected to mention that the minutes of the special meeting of the House of Delegates held November 1 appeared in the December JOURNAL. Is there a motion that they be approved as published?

It was moved, seconded, and carried that the minutes as they appeared in the December JOURNAL be approved.

The Secretary: I *move* that the reports as published in the Handbook be accepted by the House of Delegates but that discussion on them be limited to those that should be referred to reference committees, or that should be brought to the attention of the House tonight so that they may be voted on tomorrow.

Motion was seconded by Dr. Suchomel, put to a vote and carried.

Reports of Officers

REPORT OF THE SECRETARY

House of Delegates, Iowa State Medical Society:

Herewith is the report of your secretary for the year 1944:

MEMBERSHIP

A tabulation of the membership record for each county in 1944 will be found on the following pages, but it may be summarized as follows:

Active Members (Life Members included).....	2,443
Delinquent Members	9
Eligible Non-Members	116
Ineligible Non-Members	75
Physicians Not in Practice or Retired.....	122

Under the classification of active members are carried the 156 life members, and the 658 whose dues were waived because of being in military service.

The total number, however, is 28 less than last year's figure of 2,471. This is due, of course, to the fact that hardly any new physicians located in the state, and there was the usual loss of physicians because of death and relocation.

One Hundred Per Cent Counties

Fifty-two of the ninety-seven county medical societies had one hundred per cent membership, a new high in the records of the State Society. They were as follows:

Adair	Kossuth
Adams	Louisa
Audubon	Lucas
Benton	Lyon
Boone	Madison
Buchanan	Mahaska
Buena Vista	Marion
Butler	Marshall

Calhoun	Monona
Cerro Gordo	Montgomery
Chickasaw	Muscatine
Clarke	Osceola
Davis	Palo Alto
Des Moines	Poweshiek
Dickinson	Sac
Emmet	Scott
Floyd	Shelby
Greene	Story
Grundy	Tama
Hardin	Taylor
Henry	Van Buren
Howard	Washington
Humboldt	Wayne
Ida	Webster
Jackson	Worth
Jones	Wright

New Counties Achieving One Hundred Per Cent Membership		
Buchanan	Kossuth	
Calhoun	Scott	
Greene	Van Buren	
Grundy		

1944 MEMBERSHIP RECORD

COUNTY	1944 Membership	Delinquent Members	Eligible Non-Members	Ineligible Non-Members	Not in Practice or Retired	Percentage of Eligible Physicians Who Are Members
Adair	9				1	100
Adams	8					100
Allamakee	8	2				80
Appanoose	16	2				90
Audubon	8					100
Benton	17		1		1	100
Black Hawk	71		1	6	2	99
Boone	19			2		100
Bremer	16	1		1		94
Buchanan	18			1		100
Buena Vista	18				1	100
Butler	13					100
Calhoun	19			1		100
Carroll	23	1			2	96
Cass	17	1				95
Cedar	7		8		1	47
Cerro Gordo	50			2		100
Cherokee	15	1	4	1	3	75
Chickasaw	14					100
Clarke	8					100
Clay	12		1	2	1	92
Clayton	18		4		2	82
Clinton	46		1	1	2	98
Crawford	10		3		2	80
Dallas-Guthrie	37	1	2	1	3	92
Davis	8					100
Decatur	8		3			73
Delaware	8	1	6		2	53
Des Moines	38			1	2	100
Dickinson	12					100
Dubuque	73		3	1	2	96
Emmet	13				1	100
Fayette	23	2	7		2	72
Floyd	15			1	1	100
Franklin	13		1			93
Fremont	11		1			90
Greene	22			1	1	100
Grundy	12					100
Hamilton	18		3		2	86
Hancock-Winnebag	21		1		3	95
Hardin	24			1	4	100
Harrison	15		1	1	2	94
Henry	18			2		100
Howard	10					100
Humboldt	9					100
Ida	13				2	100
Iowa	12		3	1	2	80
Jackson	16				3	100
Jasper	21		2		1	91
Jefferson	16		1		1	94
Johnson	157		7		2	96
Jones	13					100
Keokuk	14		3			82
Kossuth	15			2	1	100
Lee	41	1	2	6	3	96
Linn	112		3	1	5	97
Louisa	9			1	2	100

COUNTY	1944 Membership	Delinquent Members	Eligible Non-Members	Ineligible Non-Members	Not in Practice or Retired	Percentage of Eligible Physicians Who Are Members
Lucas	12				1	100
Lyon	9				1	100
Madison	10					100
Mahaska	25			1	1	100
Marion	20			1	12	100
Marshall	42				3	100
Mills	9		2		1	80
Mitchell	13		3			80
Monona	16				1	100
Monroe	11		1			90
Montgomery	18				1	100
Muscatine	19			3	1	100
O'Brien	16		1		1	90
Osceola	12					100
Page	25		2	1	2	90
Palo Alto	13					100
Plymouth	13		3		2	80
Pocahontas	15		1	1	1	90
Polk	258		5	11	6	98
Pottawattamie	61	2	7	2	2	87
Poweshiek	19					100
Ringgold	6		1	1		86
Sac	19					100
Scott	90			6	5	100
Shelby	8				1	100
Sioux	17		1			94
Story	32				1	100
Tama	21				3	100
Taylor	6					100
Union	14		1			93
Van Buren	8				2	100
Wapello	42	1	1	2	1	93
Warren	9		2			80
Washington	21			1		100
Wayne	9					100
Webster	41			1	3	100
Winnebuck	17		1	1		94
Woodbury	115		5	6	4	96
Worth	5					100
Wright	20				3	100
Total	2443	9	116	75	122	95.1%

Counties Failing to Achieve It in 1944

Hamilton	Sioux
Lee	

One Hundred Per Cent Membership by Districts

First	3	Seventh	3
Second	6	Eighth	7
Third	5	Ninth	5
Fourth	4	Tenth	5
Fifth	5	Eleventh	3
Sixth	6		

Credit for this excellent record is due to the county society secretaries, upon whom we depend for maintenance of membership and membership records. Their help has been invaluable, and our total percentage, 95 per cent, has been achieved because of their efforts.

Committee Activities

The Committee on Medical Service and Public Relations, the Medical Economics Committee, and the Subcommittee on Medical Service Plans were very active during the year, all of them working on a prepayment medical service plan. The Subcommittee which had the specific responsibility of preparing a plan and reporting to the House of Delegates spent six months of intensive study of other plans, and reported to a special meeting of the House of Delegates November 1. Its report was accepted

in principle without dissenting vote, and the work is being continued. The central office has been most active in helping with the work of these committees. The Committee on Maternal and Child Health has continued its work on the EMIC program, and the immunization program it initiated several years ago has been continued, although without special emphasis.

Financial Report

The by-laws make the secretary responsible for collecting dues and other Society income. This has been done and the funds so accumulated have been turned over to the treasurer whose report will follow.

Robert L. Parker, Secretary

REPORT OF THE TREASURER

House of Delegates, Iowa State Medical Society:

Once again, in preparing the financial statement of the Iowa State Medical Society for 1944, an effort has been made to make it as readable and understandable as possible. There are certain sources of income; of these dues account for fifty per cent, and all other sources the balance. It is worth noting that the interest on our bonds is considerable, equal to three and one-third per cent of all income. Income from this source will be much less in 1945 after the authorized appropriation to Iowa Medical Service has been made, since the Society will necessarily have to take the appropriation from this reserve.

The Society operates on a budget system, with the various departments being allocated a certain operating fund each year. These usually reflect the activity of the various departments pretty accurately, and show the members of the Society the channels through which the income is being expended. It is true that in wartime some of the business is done by correspondence, but this applies equally to all committees and departments, and so the figures probably give a fair figure of the amount of work done.

The financial statement of the Society is as follows:

INCOME AND EXPENSE ACCOUNT

INCOME

Annual Session	\$ 3,116.00	
Dues	16,352.00	
Interest on bonds.....	1,080.00	
Interest on savings.....	39.44	
Journal—		
Advertising	\$10,981.70	
Reprints	1,219.35	12,201.05
Speakers Bureau		20.00
Miscellaneous		168.90
TOTAL INCOME	\$32,977.39	

EXPENDITURES

Administrative Miscellaneous	\$ 1,052.58
Annual Session	2,890.86
Council	651.23

County Society Services.....	3.44
General Salaries	5,897.20
Journal—	
Salaries	\$3,636.00
Printing and Engraving.....	9,357.99
Reprints	1,123.09
Legislative Committee	4,500.00
Medical Economics Committee.....	209.71
Other Committees	2,484.67
Rent and Office Supplies.....	1,680.34
Speakers Bureau, Travel Expense.....	274.43
Stationery and Printing.....	476.06
Trustees	49.92

TOTAL EXPENDITURES	\$34,287.52
EXCESS EXPENDITURES	
OVER INCOME	\$ 1,310.13

Investments and total funds are shown in the following analysis and summary:

Balance on hand at first of year:	
Cash in banks.....	\$ 6,007.48
Bonds	49,491.09
Minus net operating loss for year 1944.....	1,310.13
FUNDS ON HAND AT END OF YEAR.....	\$54,188.44

This balance on hand at the end of the year is to be found as follows:

Cash in Bankers Trust	
Company Bank	
Secretary's Account	\$ 568.08
Treasurer's Account	1,136.01
Savings Account	2,975.26
Treasury Bonds	44,491.09
U. S. Savings Bonds, Maturity Value	
Value \$4,000—Cost	3,000.00
U. S. Savings Bonds, Series G.....	2,000.00

TOTAL CASH AND BONDS (as above).....	\$54,188.44
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James A. Downing, Treasurer

REPORT OF THE BOARD OF TRUSTEES

A Review and Forward Glance

Members of the House of Delegates of the Iowa State Medical Society:

The House of Delegates on April 21, 1944, authorized the appointment of a committee to prepare plans for a prepayment medical care program and to report back to a special meeting of the House of Delegates. Three doctors, taken from the Committee on Medical Service and Public Relations and the Medical Economics Committee, were appointed as this special committee. A tremendous amount of work was necessary to outline the program and this of course necessitated the spending of considerable money. There were also two called meetings of the Executive Council in 1944 to discuss primarily the prepayment plan, one of them at the time of the special meeting of the House of Delegates November 1, and the other on December 17. Each meeting of the Executive Council costs the State Society approxi-

mately \$400. The Board of Trustees has paid all bills incurred in the preparation of the prepayment plan and is prepared to take care of whatever expense is necessary for its successful organization and functioning, since the program is one which was ordered by the House of Delegates and as such is a program backed by the whole Society. The cost for the work up to January 1, 1945, was approximately \$1,800.

The special committee has advised the Board of Trustees that it will need at least \$15,000 to get the plan functioning. Part of that money is needed for the organization work preceding and following obtaining of the enabling act; part of it is necessary as a reserve when the plan starts functioning. Therefore, the Board of Trustees has authorized an appropriation of \$6 per member from State Society funds. With a membership for 1944 of 2,442 physicians, there has consequently been earmarked a sum of \$14,652 for the prepayment plan, Iowa Medical Service, to be paid from funds of the Iowa State Medical Society. Money thus paid out by the Treasurer must be on the written order of the President, countersigned by the Secretary and approved by the Board of Trustees. The Board feels that this sum of money will probably be sufficient for the preliminary organization of Iowa Medical Service, but should more be required before the plan is self-supporting, it is the consensus of Board members that it should be appropriated from present funds rather than be raised by special assessment, as many Societies have done. The question has frequently been asked in the House of Delegates, "Why does the State Society keep such a large surplus?" The answer is that the trustees have felt and still feel that this money should be used for anything which will benefit the Society as a whole, and now that the occasion for using it has arisen, are glad that it is available and that no assessment seems necessary. It is understood, of course, that when Iowa Medical Service accumulates sufficient surplus, it will have a moral but not a legal obligation to repay the Iowa State Medical Society.

These remarks are not made by way of criticism or defense, but merely to acquaint the House of Delegates with the unusual outlay of money necessary to finance the activities it has so wisely ordered.

One of the members of the Board, Colonel Marker, recently attended a special meeting of the House of Delegates of the California Medical Association. He made an observation while there that should be written into this report:

"I want to call attention to the statement by the head of the Farm Bureau that doctors should display a more kindly attitude toward social reforms. If this were an isolated statement I would pass over it, but it seemed to be the attitude of all the speakers that doctors are against any socialization of medicine. You and I know this is not true, but we have not made evident to people that while we are favorable to the fullest development of socialization as defined by Webster, viz.: to adapt to social needs, we do oppose subordination to a political threat

which would destroy the physician-patient relationship, stifle initiative and ambition, and make discipline of our membership a thing apart from the profession. Unionism insists on disciplining its membership, and it will readily see our point of right in desiring to control our membership, but medicine is falling down in the field of public relations. If we don't wish to fall lower in public esteem, something should be done about it at once, even at the expense of increasing our budget for the purpose of shaping public opinion.

"Doctors are individuals more developed in individualism than most professions, and a meeting of a House of Delegates of a medical society the most democratic form of government imaginable, but we must become more of a guild or union because it is the only way we can oppose the threat to our freedom of professional activity. We are threatened by powerful forces, well organized, which cannot be combatted by individual activity longer."

To our way of thinking, scientific medicine alone remains the romance of great adventure. Let us hold to it. Let not sciolism muddle our thinking with the "charm of inevitable social trends."

Meetings

The Board of Trustees held meetings in January, March, April, two in May, November and December, 1944. Whenever possible, business was transacted by letter and telephone, thus conserving time and transportation. This is essential during wartime conditions.

The Central Office

There has been no change in personnel in the central office during the past year. However, the work of the office has been enormously increased because of the huge task of the special committee in the formation of the medical prepayment plan. The members of the committee have done a splendid job; they have devoted literally weeks of hard work to it, and some of its members have traveled to various states to obtain first hand knowledge of similar plans. The executive secretary is secretary to this committee as to all others; the records and material of the committee are made and kept in the central office. Its work required many hours of overtime for the office personnel. Publication difficulties, due to wartime necessities, have also added their toll. In passing, the Board wishes to express its appreciation to the members of the office staff for their conscientious work and wholehearted devotion to their duties.

Income and Expenditures

The books of the Society have been audited by William Widdup and Company, certified public accountants, as required by Chapter IV, Section 5 of the By-Laws. The audit is now on file in the central office, 505 Bankers Trust Building, where it is open to inspection by any member during office hours. There is also a copy of the audit in the office of each of the two trustees residing outside of Des Moines and these are also open for inspection.

The treasurer's report gives a more detailed report of income and expenditures for the year. Suffice it to say that the gross income from all sources was \$32,977.39. Income from dues amounted to almost half of this, or \$16,352, and dues were waived for 658 doctors in service. Gross expenditures amounted to \$34,287.52, or \$1,310.13 more than income. This came from the surplus of the Society.

As was mentioned in the first part of this report, a very sharp increase of expenditures is anticipated for 1945, due to promotion and organization of Iowa Medical Service. Although it is impossible to say just how much will be needed at this time, it is well to keep in mind that a sum of \$25,000 or more may be needed before the plan is self-supporting. In spite of that, the Board of Trustees does not believe that the annual dues should be increased, and recommends that they remain \$10 for 1946. It reiterates its belief that the surplus of the Society should be used to further the activity which the Society has authorized by formal vote, instead of resorting to a special assessment upon the members.

Respectfully submitted,

Oliver J. Fay, Chairman
John I. Marker
Walter A. Sternberg

REPORT OF THE CHAIRMAN OF THE COUNCIL

There were no meetings of the Council during 1944 except during the annual meeting and jointly with the Executive Council.

At the meeting December 17, 1944, after the Executive Council meeting was adjourned, the Council convened to discuss the tumor clinics in Iowa. The utilization or nonutilization of tumor clinics was discussed, as was the need for legislation making wider utilization possible. It was voted that the Cancer Committee should draw up a bill to be given to the Legislative Committee for study, and to the State Department of Health for its approval, and then an effort be made to get it passed in the coming session of the Legislature. At this meeting it was also voted that the Cancer Committee approve the full time employment of someone by the Field Army to head its work.

James E. Reeder, Chairman

REPORT OF THE FIRST COUNCILOR DISTRICT

Medical activities throughout the First District have been somewhat restricted because of the increased work for the remaining doctors. In some counties it seems almost impossible that so few doctors could be giving such good service to so many persons. To my knowledge we have received no new doctors into our district, but have lost three by death in the past few months. I understand membership in our County and State Society is being kept at its usual high level. All counties are keeping up their societies although they are meeting only four to six times a year and are carrying on to the best of their ability.

We have two new names for the Fifty Year Club

in Fayette county, Dr. Parker of Fayette and Dr. Walsh of Hawkeye. Both are still fairly active in practice.

Most of the counties are still carrying on their vaccination and immunization programs the same as usual. The First District is very much interested in the Iowa plan for prepaid medical insurance. Our tuberculosis committees are doing good work in all the counties and have more funds in their treasuries than ever before.

L. L. Carr, Councilor

REPORT OF THE SECOND COUNCILOR DISTRICT

The various counties comprising the Second District have been functioning very well considering the shortage of medical men. Some of the counties have lost doctors by death or removal; Wright lost three by death and three to the armed forces; Butler had one removal; Winnebago has lost one and gained three; Hancock has lost one by death; Franklin has lost one by removal; and Cerro Gordo has lost two and gained two. The remainder of the counties have the same status as last year.

Most of the counties have held their programs of immunization for diphtheria and smallpox. All but one (Worth) are satisfied with the working of their indigent setup. Worth seems to be having some trouble with its board of supervisors and as a result the osteopaths are doing most of the work there.

From the foregoing I believe that the condition of things in this district is at least up to, or possibly a little better, than last year, taking everything into consideration. I believe we will continue to carry on until this war is over and things get back to normal.

C. H. Cretzmeyer, Councilor

REPORT OF THE THIRD COUNCILOR DISTRICT

From reports that have come to me from the several deputy councilors of the Third District, I am sure that organized medicine in this district is running along smoothly and on a high plane and conditions are very much the same as they were a year ago. All of the doctors in the district are very busy on account of the continued war shortage of physicians but are going ahead uncomplainingly and working long hours to the end that in no part of this district are the people suffering from lack of medical care.

On account of the fact that the physicians are so busy with their practice, plus the additional fact that gasoline and tires are scarce, not as many meetings have been held in this district this year as has been the case in the past; however, all of the counties have held one or more meetings and the Upper Des Moines Medical Society staged a very successful meeting at Estherville in November which was largely attended by doctors from all over the northwest part of the state.

We were unfortunate in this district in losing one of our leading physicians by death during the early part of the summer. I refer to Dr. F. P. Winkler of Sibley, who died in June following a long illness. Dr. Winkler was a former president of the State Society and was my predecessor as Councilor for this district, which office he held for many years. He did much for organized medicine not only in this district but in the state at large. We will miss him greatly.

I want to take this opportunity to thank the deputy councilors and members of the constituent county societies for the fine cooperation they have given me and the many courtesies they have shown me while serving as their councilor during the year that has passed.

J. B. Knipe, Councilor

REPORT OF THE FOURTH COUNCILOR DISTRICT

There were no Fourth District meetings held this year. After discussing county society meetings with several men in the different counties of the Fourth District it was decided it was rather difficult to hold district meetings, although a few societies reported holding several meetings during the year.

James E. Reeder, Councilor

REPORT OF THE FIFTH COUNCILOR DISTRICT

Activities of the Fifth District have practically been at a standstill during the past year. We have had the same difficulty as in the previous years of war shortages. It has been extremely difficult to get speakers for meetings and many of the county meetings have been held with only local talent furnishing the scientific papers.

Most of the counties have continued with their immunization programs. These have been carried on mostly through the schools, but with the help of the physicians.

The physicians are tired and overworked and have not cared to spend much time attending scientific meetings. What meetings have been held have had a very small attendance.

E. F. Beeh, Councilor

REPORT OF THE SIXTH COUNCILOR DISTRICT

No district meetings have been held during the past year. Most of the counties in the district have held regular meetings. Some convened every month, some every two or three months. Those counties having monthly meetings usually have had excellent scientific programs. I believe all of the counties have had a business meeting at least.

Many of our doctors are in the armed forces. We have been exceedingly busy on the home front trying to care for the people. Immunization programs have been carried out.

Travel being restricted, postgraduate courses have been abandoned "for the duration."

We will earnestly welcome the day when our men will return and we may follow our regular plan of organization both scientific and social.

James C. Hill, Councilor

REPORT OF THE SEVENTH COUNCILOR DISTRICT

Conditions in the country due to the war have greatly curtailed the activities of the county societies. This has been felt more keenly in those counties that do not have large cities where it is possible to arrange especially prepared programs. However, there have been good reports from most of the counties, especially in the carrying out of immunization programs in the schools and among the children of preschool age.

A general interest has been manifested throughout the district in the State Medical Society's prepayment plan of care for the low income group, with especial discussion of extension to the farm group of a satisfactory contract. The consensus was that this must be done in order to stop or replace the demand for federalized medicine.

During the summer a very pleasant and instructive meeting was held at the Schick General Hospital at Clinton, which was attended by about two hundred and fifty doctors from Iowa and Illinois. This meeting was greatly appreciated because it gave us an opportunity to observe some of the remarkable results obtained by the modern methods of reconstructive surgery.

We feel we can say with pardonable pride that the doctors in the Seventh District will give unfaltering aid to the profession in Iowa, and will "carry on" for the duration.

H. A. Housholder, Councilor

REPORT OF THE EIGHTH COUNCILOR DISTRICT

Each of the nine societies in the district is keeping up its interest in medical matters despite the absence of many, at least twenty-two per cent, of its physicians. One county has been unable to have a meeting for more than a year because there are only two or three physicians able to carry on active practice. Scott county, the largest society, has kept up its meetings regularly by drawing speakers from the University and Schick Hospital at Clinton. Des Moines county had one meeting, the program for which was provided by the medical staff of the Mayo Hospital at Galesburg. Other meetings have been on the economics of medicine. All the societies have had meetings to discuss the proposed medical service plan. Those doctors remaining at home have kept the home fires burning and the morale of the profession is high.

C. A. Boice, Councilor

REPORT OF THE NINTH COUNCILOR DISTRICT

Conditions in the Ninth District remain about the same as a year ago. Societies have cooperated in the tuberculosis and immunization programs in their counties, have held their regular meetings (Wapello county has presented a scientific program almost every two weeks), and have carried on as best they could under present conditions.

A district meeting of the Ninth Councilor District and physicians of the Fourth Congressional District was held in Chariton in October, with the Lucas County Medical Society acting as host. We were privileged to have with us as speakers our state president, Dr. M. C. Hennessy, and president-elect, Dr. R. D. Bernard. The scientific part of the program was presented by Dr. H. A. Spilman and Dr. D. O. Bovenmyer of Ottumwa. Representatives of twelve counties were present.

We trust that some of our members will take time out from their arduous duties and pass on to their Councilor suggestions for the welfare of the profession.

R. C. Gutch, Councilor

REPORT OF THE TENTH COUNCILOR DISTRICT

On the basis of a few reports from the various counties that make up the Tenth District, and from personal observation, the deduction can be arrived at that the spirit of organized medicine has not lessened, but in fact has been strengthened by the added burden that has been placed upon the profession. In many of the rural counties there is insufficient medical personnel to fill all the offices. However, I predict the district will be well represented by delegates to the annual meeting.

James G. Macrae, Councilor

REPORT OF DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

The report of the delegates to the American Medical Association was prepared by Dr. T. F. Thornton and published in the August, 1944, issue of the Journal of the Iowa State Medical Society. This brings to the members of the society a report while it is still fresh, and we feel is much more advantageous than waiting a year to report back to the Iowa House.

R. D. Bernard
T. F. Thornton
T. A. Burcham

Reports of Standing Committees

REPORT OF THE COMMITTEE ON CONSTITUTION AND BY-LAWS

Your Committee on Constitution and By-Laws recommends that a change be made in Chapter I, Section 1, of the By-Laws, so that it will read as follows:

Section 1. This Society shall consist of members and life members.

a. Members—The members of this Society shall be the members of the component county medical societies.

b. Life Members—as defined in the constitution.

This change is recommended for the following reasons: It has been the practice for the State Society to allow associate members of the Johnson County Medical Society, physicians who are not engaged in the practice of medicine and are not licensed in Iowa, to become members. The American Medical Association will not recognize physicians not licensed in Iowa. Consequently, it is felt that such physicians should be allowed to be associate members of the county medical society only, but not of the state society.

Delegates are already members of the society and do not need to be specifically set out as they now are. It is a repetition as it now stands.

Your committee expects to have other changes in the by-laws to recommend at the time of the annual meeting, but they are dependent upon acceptance by the House of Delegates of certain recommendations as to committee revision.

John H. Henkin, Chairman
William L. Alcorn
R. F. Luse

REPORT OF THE MEDICAL ECONOMICS COMMITTEE

Prepayment Medical Plan. The Medical Economics Committee has worked in close conjunction with the Committee on Medical Service and Public Relations in the development of a statewide prepayment medical plan, as directed at the meeting of the House of Delegates in April, 1944. The plan was developed chiefly through the efforts of a subcommittee from the two committees, with Dr. Martin I. Olsen as Chairman, Dr. H. E. Stroy and Dr. J. A. Thorson being the other two members.

Meetings of the full committees were held on September 10 and October 15, 1944, and a full report was made to the special meeting of the House of Delegates November 1, 1944.

Old Age Assistance. Several communications have been received from Dr. Channing Smith, Medical Advisor to the State Board of Social Welfare. The problem of old age assistance is continuously growing. There have been no essential changes in the program during the past year.

Charles T. Maxwell, Chairman

REPORT OF THE COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

For purposes of record, mention should be made of certain important matters which are being considered by interested state and national groups which affect the field allotted to your committee.

1. Adequate hospitals

National legislation is under consideration de-

signed to insure that each state is provided with hospitals adequate in numbers, balanced in distribution, and efficient in operation. Federal grants-in-aid are proposed to aid in setting up the program. A meeting of representatives of interested groups in this state, including the State Medical Society, recommended to the Governor of the State of Iowa the appointment of a committee to study the needs of the state. Your committee has no recommendation to make at this stage.

2. *Instruction in tropical diseases*

The world-wide distribution of Iowa troops in this war makes it a certainty that on their return some of them will suffer from so-called tropical or other diseases acquired in the service and that for years to come our physicians may expect from time to time to encounter in servicemen conditions which are the aftermath of such diseases. In addition, with the development of postwar international aviation routes some diseases heretofore non-existent in this state may come to be of more than academic interest.

Without adopting in any sense an alarmist view of these prospects, your committee believes it is sound common sense for our physicians to receive suitable instruction in tropical and parasitic diseases. In this connection, it is of interest to report that for several years the College of Medicine, State University of Iowa, has been offering such instructional courses routinely to medical students. Furthermore, definite plans are being made whereby following the war the College of Medicine will resume the offering of refresher courses to practicing physicians in all clinical branches, including tropical and parasitic diseases. Your committee recommends that the members of the Society acquaint themselves with these plans as they are announced. We recommend further, that the various county societies include programs devoted to the principal tropical and parasitic diseases.

Information was received as this report was being completed that a tentative proposal has been advanced by the American Society of Tropical Medicine under which a federal agency and a state agency are to work out definite plans to facilitate the instruction of physicians in tropical and parasitic diseases. This proposal at present is at the discussion level and recommendations by your committee are not in order at this time.

M. E. Barnes, Chairman
Felix A. Hennessy
Aldis A. Johnson

REPORT OF THE COMMITTEE ON NECROLOGY

The Iowa State Medical Society lost 59 members by death in 1944. Three members died in military service: Dr. Robert W. Baker of Davenport, and Dr. Roderick F. MacDougal of Cedar Rapids, both of whom died in England, and Dr. O. Donald Thatcher of Fort Dodge, killed in action over France.

Will the House of Delegates please stand for a moment in memoriam while I read the names of our comrades who are no longer with us.

Name	Town	Age
Robert W. Baker.....	Davenport	28
Frederick Binder.....	Corning	70
Wilbert W. Bond.....	Des Moines	46
William W. Bowen.....	Fort Dodge	75
Glenn A. Brandt.....	Shellsburg	72
Elbridge M. Breniman.....	Ackley	73
Victor W. Byrnes.....	Durant	70
Oscar O. Carpenter.....	Sully	76
William S. Carpenter.....	Des Moines	73
Edgar Christy.....	Glenwood	63
Channing E. Dakin.....	Mason City	68
Lee Wallace Dean.....	Iowa City	70
John G. deBey.....	Orange City	60
Charles A. Dimond.....	Keokuk	74
William J. Elliott.....	Dawson	80
Charles H. French.....	Cedar Rapids	73
Joseph George.....	Dows	72
Hamilton S. Gillespie.....	Sioux City	69
James Hinchcliff.....	Minburn	65
George Hofstetter.....	Clinton	86
Harry M. Ivins.....	Cedar Rapids	65
Leon D. Jay.....	Waverly	58
Arthur E. Jessup.....	Diagonal	74
Addison L. Judd.....	Kanawha	81
Charles S. Kennedy.....	Logan	75
Thomas B. Lacey.....	Glenwood	64
Florance P. Leehey.....	Oelwein	69
Samuel J. Lewis.....	Columbus Jct.	73
Martha A. Link.....	Dubuque	59
Oscar C. Lohr.....	Churdan	71
Charles E. Magoun.....	Sioux City	56
James H. Mason.....	Plainfield	70
Roderick F. MacDougal.....	Cedar Rapids	34
Francis P. McNamara.....	Dubuque	60
Morris Moore.....	Walnut	70
Giles C. Moorehead.....	Ida Grove	88
Cora W. Negus.....	Keswick	76
Isaac E. Nervig.....	Sioux City	70
Dennis L. Newton.....	Fort Madison	79
William W. Pearson.....	Des Moines	74
Frank O. Pershing.....	Keota	76
William Pfannebecker.....	Sigourney	80
Norman W. Phillips.....	Clear Lake	85
Bert E. Purcell.....	Iowa Falls	71
Eli F. Rambo.....	Webster City	56
John H. Runyon.....	Seymour	77
Frank L. Secoy.....	Sioux City	56
Jacob M. Smittle.....	Waucoma	69
George H. Steele.....	Belmond	60
Willis F. Stotler.....	Shenandoah	77
Edward F. Strohbehn.....	Davenport	79
Homer O. Strosnider.....	Keokuk	67
O. Donald Thatcher.....	Fort Dodge	31
Edward J. Van Metre.....	Tipton	83
Adam Weaver.....	Cumberland	77
Karl R. Werndorff.....	Council Bluffs	66
Frank P. Winkler.....	Sibley	61
Charles E. Wright.....	Clear Lake	83
Hiram B. Youtz.....	Webster City	69

James G. Macrae, Secretary of the Council

REPORT OF THE PUBLICATION COMMITTEE

The publication of the Journal of the Iowa State Medical Society proceeded rather uneventfully during 1944 with the exception of the various difficulties incurred because of wartime regulations and shortages.

The Iowa City issue was repeated in April and, as in 1943, was the outstanding issue of the year. The Publication Committee greatly appreciates the splen-

did cooperation of Dr. MacEwen and his staff in preparing material for this issue.

The Roster of Iowa Physicians in Military Service was continued as a monthly feature during the year, and reports indicate it is of considerable interest to the physicians at home as well as to those in military service. In this connection we should like to ask each delegate to remind the secretary of his county medical society of the importance of keeping the Journal office informed of any change in rank or address of the men in service from his county. The problem of getting the Journals to military personnel is one which has grown steadily since the beginning of the war.

	1942	1943	1944
Reading Pages	588	586	532
Advertising Pages	328	330	396
Percentage of Reading Pages	64.2%	63.9%	57.3%
Original Articles	89	76	50
Editorials	68	55	53
Total Journal Expenditures	\$12,824.17	\$12,889.49	\$14,117.08
Total Journal Income	8,786.50	9,838.37	12,307.60
Net Expenditure for Journal	\$ 4,037.67	\$ 3,051.12	\$ 1,809.48
Number of State Society Members	2,490	2,471	2,443
Net Expenditure per Member	\$ 1.62	\$ 1.23	\$ 0.74

It will be noted from the figures in the accompanying table that the net expenditure for the Journal has decreased substantially each year. This is mainly accountable to the enlarged advertising programs of the various firms who patronize our Jour-

nal, as well as the addition of several new advertisers. The net expenditure per member in 1944 was a somewhat smaller figure than that of the previous year because of this additional income. The Cooperative Medical Advertising Bureau has obtained splendid results in procuring advertising contracts for the various state journals, and it is an indispensable factor in the publication of our Journal. It is the responsibility of the Iowa doctors to patronize these companies who advertise in our Journal to ensure the continuation of their contracts, and we sincerely hope each delegate will call this matter to the attention of the members of his county medical society.

Lee Forrest Hill, Editor

REPORT OF THE COMMITTEE ON PUBLIC POLICY AND LEGISLATION

The Legislative Committee the past year has been instructed to work for the passage of an enabling act, which would legalize a plan, sponsored by the Iowa State Medical Society, for providing prepaid medical insurance. Your Committee is glad to report that such an enabling act has been passed unanimously by both houses of the present Legislature, has been signed by the Governor, has been published in two newspapers of the state, and is therefore now a law.

John W. Billingsley, Chairman
A. L. Jenks, Jr.
L. A. Coffin

Reports of Special Committees

REPORT OF THE BALDRIDGE-BEYE MEMORIAL COMMITTEE

As chairman of the Baldridge-Beye Memorial Prize Committee, I wish to report that there have been no papers submitted this year.

W. M. Fowler, Chairman

REPORT OF THE COMMITTEE ON MATERNAL AND CHILD HEALTH

The Committee on Maternal and Child Health held only one meeting during 1944, and that at the time of the annual meeting. However, it did a great deal of work by correspondence, and its members individually devoted much time to the EMIC program.

On March 1, 1944, the fee for maternity fees was raised from \$35 to \$50. This was accepted by the committee, although its original attitude was unchanged and it still believed the principle involved was wrong and the higher payment could not compensate for that.

The program was discussed at the annual meeting and the committee met at that time and brought back specific recommendations to the House of Delegates, and these were approved. They were published in the May Journal on page 206, and in the July Journal on page 316, and so will not be reprinted here.

Following the annual meeting, Dr. Plass and Dr. Bernard were sent to Washington to attend an appropriation hearing before Congress on the EMIC program. They were well received, and the comment was made that it was a good movement to send them, although it would make no difference in the program because it had the approval of the Army and Navy. They then visited the Iowa members of Congress and explained the viewpoint of the medical profession to them in detail. They were received most courteously, and were told that the Congressmen appreciated their coming to Washington to discuss the matter.

Later in the summer Dr. Plass made a second visit to Washington to visit with the Congressmen, and also in November he was asked to discuss the EMIC program at the annual conference of secretaries and editors in Chicago. A summary of his talk was given in the January Journal on page 18.

Further changes in the EMIC program were submitted to the committee by mail. The immunization program was left to its own momentum, and no special emphasis was put on it. This constitutes a report of the activities of your committee for the year.

H. E. Farnsworth, Chairman

REPORT OF THE MEDICAL LIBRARY
COMMITTEE

I wish to express to the members of the Iowa State Medical Society my appreciation of their gifts of old medical journals in response to the notice which has been very kindly inserted in the Journal. Since only enough copies are published for actual subscriptions it is imperative that scientific journals be saved so that after filling our own files we may put them aside to replace foreign libraries.

There has been a continued interest in the writing of county medical histories and in the collection of items of historical interest. Among other gifts we received Dr. Oscar Burbank's diploma from Harvard Medical College in 1848, signed by Doctor Oliver Wendell Holmes, Professor of Anatomy. Doctor Burbank was a pioneer doctor in Waverly, Iowa, and was present as a medical student the first time ether was administered, his account of which event we have in this library.

We continue to send material to doctors in service.

Statistics

Pieces of literature loaned.....	10,007	
Pieces of literature consulted in library.....	7,036	
		17,043
Requests for literature.....	2,465	
Patrons served in library.....	1,790	
		4,255.
Bibliographies prepared		7
Letters written	1,389	
Postal cards written.....	1,500	
		2,899
Telephone calls		819
Accessioned volumes in library.....		30,034
Periodicals received by paid subscription	189	
Periodicals received by gift subscription	82	
		271
Reprints added to library.....		685
Gifts received by the library		
Journals	12,330	
Bound Journals	50	
Books	1,040	
Reprints	1,014	
Bulletins	1,337	
Transactions	110	
Proceedings	117	
Portraits	18	
Cartoons	51	
		16,068
Gifts made to other libraries		
Journals	1,876	
Books	149	
Bulletins	437	
Reprints	61	
Transactions	8	
Pamphlets	1	
Indices	2	
Proceedings	6	
		2,540
Borrowed from Surgeon General's Library....	24	
Borrowed from other libraries.....	5	

Jeannette Dean-Throckmorton, Medical Librarian

REPORT OF THE COMMITTEE ON MEDICAL
SERVICE AND PUBLIC RELATIONS

This committee was originally appointed by President L. R. Woodward in October, 1943, at the request of the American Medical Association following the organization of the Council on Medical Service and Public Relations. It was to be called the Committee on Medical Service and Public Relations. Its object was to cooperate with the Council and operate on a state level. The committee was made a Special Committee of the House of Delegates at the first session of the House, April 19, 1944.

Immediately it was apparent that the duties of this committee overlapped many of the activities of the Committee on Public Policy and Legislation and an early agreement was reached with the Committee on Public Policy and Legislation that its activities would be restricted to legislative problems within the state, and the new committee would assume the public policy activities plus Federal legislative problems. The agreement has proved to be very satisfactory.

During the second year of its existence this committee has broadened the scope of its activities which will be discussed under the following headings:

Council on Medical Service and Public Relations

Our relations with the new Council and its secretary, Dr. G. Lombard Kelly, were most cordial but it was soon evident that the Council was struggling with an organization problem that required solution before any effective progress could be made. It was also apparent that the Council could not accomplish the objectives desired by the North Central Medical Conference, which proposed its formation, if it was not given a free hand by the officers and trustees of the American Medical Association.

Late last fall Dr. Kelly resigned and up to the present time no one has been appointed to fill the vacancy.

A Washington office was eventually established under the direction of Dr. J. L. Lawrence. The establishment of a Washington office by a group of western states, the threat of a second office in Washington by the Association of American Physicians and Surgeons, Inc. (Lake County Plan), plus the constant demand for the office by the North Central Medical Conference were the factors that brought about the establishment of the Washington office.

Our relations with Dr. Lawrence have been most satisfactory. The bulletins have increased in number and volume. They have kept the members of the Association informed concerning pending legislation. Dr. Lawrence has made valuable contacts in Washington and is without doubt the right man in the right place.

The "promotion" of Dr. Louis H. Bauer from chairman of the Council to the Board of Trustees has done much to assist the Council in its relations with the Trustees.

A detailed report of the activities of the Council will be presented to the House at its annual meeting.

National Legislation

Our Congressional delegation has been informed of our attitude on all bills pertaining to the practice of medicine. It is our firm conviction that these gentlemen will give our profession 100 per cent support.

It is impossible even to attempt listing the numerous bills affecting the medical profession. The Wagner-Murray bill died with the last Congress, but we may expect the demands of the bill to appear in new bills in any type of legislation that appears likely of passage. Social security is bound to be extended in many ways to include the medical profession. A vast expansion of the public health program is assured. This will include an extensive program of hospital construction and the establishment of health centers. The osteopaths seek recognition constantly and the chiropractors are fighting to have the term "physician" include their profession. Congressman Miller of Nebraska seeks to have a Department of Health established, probably under the supervision of the Public Health Department.

The sad fact still remains that the American Medical Association, in spite of the Washington office of the Council and the efforts of the National Physicians Committee, is not effectively organized to fight vicious federal legislation. Our state legislative setup is far superior.

North Central Medical Conference

Iowa was well represented at the annual meeting of this organization, and, as usual, the reports and discussion provoked were of great value to the participating states. The address of the president, Dr. L. W. Larson, of Bismarck, North Dakota, was of special interest. His analysis of the standards of medical practice in this country was clear, concise, and, may I say, painful. He called attention to our shortcomings and warned us that while American medicine and service are the best in the world, they are not good enough. Our faults must be corrected or public opinion will force socialization of medicine.

The reports of Dr. J. L. Lawrence and Dr. A. W. Adson on the recent activities of the Council were most encouraging. The Conference indorsed the work of Dr. Adson on the Council and pledged its support for his re-election at the next meeting of the House of Delegates of the American Medical Association.

Montana was added to the organization and Iowa was honored by having one of its representatives elected to the presidency.

Public Relations in Iowa

This committee has kept in close contact with all organizations in Iowa which are concerned with health problems. We feel that this activity of the committee is most important. Through this work the various organizations of the state will be brought in close contact with the State Society; they will obtain a better understanding of their problems; they will have an open door to the Society to present their problems. Response to this "service" has been most gratifying.

Inter-State Public Relations

Dr. E. D. Plass and the chairman of this committee visited Washington in April. The object of this trip was to testify at Congressional hearings concerning the EMIC program. (A detailed report of these hearings was sent to officers and delegates of the State Society.) Much of the effectiveness of the testimony presented at the hearing by the representatives of various states was definitely lost by a lack of preparation and planning. Men capable of expressing the opinion of this Society must be developed by this committee and made available when their services are needed. Here again there is a definite lack of leadership in the American Medical Association organization.

Following this conference some changes advantageous to physicians were made in the EMIC program. This trip to Washington met with the instant approval of our Washington delegation. They extended every courtesy to Doctors Plass and Bernard and in practically every subsequent letter from them they have expressed approbation of the Iowa method of "bringing our ideas to them in a personal way." The trip has paid excellent dividends in many respects.

The Houses of Delegates of the following states were visited: Minnesota, Wisconsin, Illinois, Indiana and Michigan. Valuable information was acquired and three of these states have sent representatives to Iowa to acquire information concerning our methods. This practice should be continued.

Special Activities

Three members of the committee have been very active in preparing the medical service plan which should be in operation shortly. Much of the information concerning this plan was acquired during visits to the other state societies just mentioned. We have had most hearty cooperation from the officers of the Society and from the Medical Economics Committee.

We have also made an exhaustive study of the Association of American Physicians and Surgeons, Inc., the result of which will be presented in a special report to the House of Delegates.

R. D. Bernard
M. C. Hennessy
L. R. Woodward
M. I. Olsen
J. A. Thorson
I. N. Crow
Fred Sternagel

REPORT OF THE SUBCOMMITTEE ON MEDICAL SERVICE PLANS

The first work of the Subcommittee on Medical Service Plans, after its appointment last April, consisted of procuring material from the many different medical plans already in operation and studying the different contracts, as well as reading whatever had been published about them and their operation. Acquiring this broad background took about two months, after which the committee met with Mr. Mannix, who was connected with the Michigan plan

in its early stages. Mr. Mannix gave us an entire day, answering our questions and telling us why certain decisions had been reached, what would work and what would not work, what factors had to be considered, etc. After more study, the committee met again and in this meeting agreed that a service plan was to be preferred to an indemnity plan from the subscriber's viewpoint, although an indemnity plan would be easier to administer and might be more attractive to the physicians. Under a service plan, persons in the lower income group would be assured of complete service without any liability for further payment of doctors' fees for services rendered. Under an indemnity plan, they would be guaranteed a certain sum of money to apply on the doctor's bill, but would not be assured that this would cover the charge. A service plan seemed to fit the needs of the people more completely, and the committee thereupon decided to formulate such a plan.

Most plans have started out covering surgery and obstetrics only, without a medical benefit, but the committee felt it would be well to add certain medical benefits if at all possible. It realized that surgical coverage is easier to estimate and govern than medical coverage would be. In surgery the rule that the penalty must be greater than the indemnity applies, but does not hold true in medicine. However, it was felt that medical care in hospitals was more or less a controllable, or predictable, factor, and that such care might be included in the contract. It seemed wise, however, to eliminate the first three days of any hospitalized illness, in order to prevent flooding the hospitals with all cases of illness in order to reap the benefits.

The committee then formulated a contract, articles of incorporation, by-laws, and an agreement of physicians to participate. The committee chairman was sent to Detroit to talk to officials of Michigan Medical Service, and to attend a special meeting of the House of Delegates of the Indiana Society. Following these visits, further changes were made in the contract and it was sent to the delegates of the State Society for their study prior to the called meeting of the House of Delegates November 1.

It should be stated that on September 18, a letter was sent to all men in service outlining the proposed plan and asking their opinion. About ninety replies were received, with only one doctor of the group being opposed to the idea. All others felt it was a step in the right direction and while they had questions and ideas about it, they approved the principle and commended the start that had been made.

At a special meeting of the House of Delegates November 1, the plan as presented proposed to cover surgical and obstetrical care, and to give hospitalized medical care of 21 days, this care to begin on the fourth hospital day. Income limits were set at \$1,500 for single persons and \$2,500 for families, and rates at \$1 a month for the individual, and \$3.25 for families. The Legislative Committee was instructed to work for the necessary enabling act to make possible the formation of a non-profit company to provide the medical care, and the appointment of a

special committee to arrive at a satisfactory fee schedule was authorized. The Executive Council was also authorized to appoint the first board of directors to serve until the company could be legally organized after passage of the enabling act.

Since the meeting of the House of Delegates your committee has continued to work on the contract, and has been aided greatly by Mr. Phil Irwin, actuary for the Equitable Life Insurance Company, Mr. W. F. Poorman, actuary for the Central Life Assurance Society, and Mr. F. P. G. Lattner, Executive Director of Hospital Service, Inc., of Iowa. These gentlemen, with their background of insurance, have been of inestimable help. Mr. O. L. Smith of Sioux City has also helped with suggestions for the new contract.

The fee schedule has again been revised in accord with the contract, and a rate schedule will be determined shortly. It has been decided that it might be advisable to offer an employer the choice of a surgical contract, or a surgical and medical contract, and consequently two types will be written.

As this report is being written, the enabling act has been passed both by the Senate and the House of Representatives and has been signed by the Governor. Now all that remains is publication, after which we can file for incorporation and be ready for business.

Your committee hopes that its work has met with your approval. It has been guided at all times by the thought that any plan, to be successful, must offer the greatest possible security to the subscribers, and yet be attractive to the physicians who will underwrite it and make it possible. It must be financially sound; its rates must not be so high as to make its sale impossible, nor too low to permit equitable fees to physicians.

We are very grateful to the many physicians who have given time and thought to the work. The Medical Economics Committee, the Committee on Medical Service and Public Relations, the Executive Council, and other interested physicians have come to meetings to discuss and advise regarding the plans, and have been of the greatest help and encouragement to the members of the subcommittee.

Respectfully submitted,

Martin I. Olsen, Chairman
Herbert E. Stroy
John A. Thorson

REPORT OF THE COMMITTEE ON POSTWAR PLANNING

This committee was created as a special committee without definite instructions as to what was desired or contemplated. In conference with the Executive Council the chairman discussed the work of the committee and the consensus was that the committee restrict its activities until a definite need for its services presented itself.

Your chairman made a suggestion for the committee for aiding men returning from service in deciding where to locate for practice in Iowa. This

suggestion was essentially as follows: That the central office of the Society collect information (to be obtained from the American Medical Association) as to each county; its financial status, agricultural products, commercial trade, etc., survey its racial and religious groups in the county population; population of the county, size of principal towns and the number of physicians practicing in the county; and that this information be placed on a large map of Iowa in the central office.

This will give any man desirous of obtaining information the opportunity of going to the central office where he can quickly survey the state, and where every effort will be made to help him. This suggestion obviates the expense of printing such information, and yet makes it available to those who may be in need of it.

Respectfully submitted,

G. F. Harkness, Chairman
E. M. MacEwen
C. L. Putnam

REPORT OF THE COMMITTEE ON PUBLIC RELATIONS

The work of the Committee on Public Relations has been somewhat absorbed by the new Committee on Medical Service and Public Relations, and since the chairman has been a member of the new committee, it has followed that most of the public relation work has been done through the large committee. Consequently there is no separate report to be made by this committee.

Ira Nelson Crow, Chairman
C. C. Colleston
Henry M. Pahlas

RECOMMENDATION ON REORGANIZATION OF COMMITTEES

At the meeting of the Executive Council held October 31, 1944, it was voted that a committee consisting of the president, the president-elect and the secretary should survey the committees of the State Society, eliminating those that were not working, and outlining the duties and scope of each, and should report to the House of Delegates with its findings at the next regular meeting.

The three persons so instructed met Sunday, February 25, and studied very carefully the various committees of the State Society. Before starting in on this work, they studied the committee setup in other states and wrote for information on how the other states had fared with their setup.

The Standing Committees are designated by the by-laws and their duties outlined therein. The committee has the following recommendations to make in regard to them:

1. That the Committee on Medical Service and Public Relations be made a standing committee of the House of Delegates. It shall consist of at least seven members who shall serve in this state in a similar capacity as and in cooperation with the Council on Medical Service and Public Relations of the American Medical Association, and shall have re-

ferred to it all matters of medical economics, medical services, public relations with other health agencies and the public, contact with other state and sectional societies, and matters of national legislation affecting public health.

2. That the Committee on Medical Economics be incorporated into the Committee on Medical Service and Public Relations as a subcommittee, since its work is so interrelated with the work covered by the other committee that it is hard to separate the functions of each.

3. That the name of the Committee on Public Policy and Legislation be changed to the Committee on Legislation, since the Committee on Medical Service and Public Relations is charged with public relations, which is more or less public policy. Its duties shall be confined to state legislative matters, with national legislation being the responsibility of the Committee on Medical Service and Public Relations.

4. That the Subcommittee on Medical Service Plans be continued as a subcommittee of the Committee on Medical Service and Public Relations.

In regard to the Special Committees of the House, the committee recommends the following:

1. That the Baldrige-Beye Memorial award be made in the form of a yearly grant of \$100 instead of as a prize; that this grant be made available as a scholarship to one or more students in the College of Medicine in the University; that a committee be appointed to determine the awarding of such scholarship, the chairman to be named by the president, the other two members by the Dean of the College of Medicine, all three names to be approved by the House of Delegates as at present.

2. That the Medical Library Committee be abolished since the need for such a committee does not exist at the present time.

3. That the Military Affairs Committee be no longer listed since it is not truly a committee of the State Society but an independent group which elects its own officers.

4. That the Public Relations Committee be abolished as an independent committee and be set up as a subcommittee of the Committee on Medical Service and Public Relations.

5. That the Woman's Auxiliary Advisory Committee be abolished since the Auxiliary necessarily has to work closely with the president of the State Society and the need for the committee no longer exists.

6. That the duties of the Postwar Planning Committee shall consist of the following: aiding in the relocation of physicians, especially those returning from military service; cooperating with the Committee on Medical Education and Hospitals in planning for proposed hospitals and health centers; cooperating with the Committee on Medical Service and Public Relations in keeping in touch with public health programs and various state planning boards.

Furthermore, the committee recommends that Chapter VII of the by-laws, relating to duties of the Council, be rewritten. It recommends that Section 1 be changed so that the Council would have to meet

only once during the annual session, and that for organization of the Council for the coming year; that other meetings should be discretionary and called as necessity dictates. It recommends that Section 2 be left as is.

The committee recommends that Section 3 of Chapter VII be made a duty of the Executive Council since that group has authority to carry out its decisions. It feels that Section 4 should also be incorporated into the duties of the Executive Council.

In making these recommendations, the committee feels that the Council would gain authority it now lacks; that it has shown in the last three years that it functions most effectively when meeting as a part of the Executive Council; that the need for the

Executive Council has grown steadily since its formation and will continue to grow; and that the closer knitting of the Council into the Executive Council would make for better integration of the work of the Society and save a possible duplication of effort.

Elimination of Section 4 of Chapter VII would make the Council committees committees of the House of Delegates, and so responsible to the House and the Executive Council.

The committee also recommends that in the future, when new committees are voted into being, it shall be mandatory that the duties of such committees shall be defined at the time they are organized.

Respectfully submitted,

M. C. Hennessy, President
R. D. Bernard, President-Elect
Robert L. Parker, Secretary

Reports of Committees of the Council

REPORT OF THE EXECUTIVE CANCER COMMITTEE

The Executive Cancer Committee and the Field Army have sustained a great loss in the passing of Dr. F. P. McNamara. Through the Cancer Bulletin he did everything possible to make the laity as well as the medical profession cancer conscious. His ceaseless energy devoted to the clinicopathologic conferences in Dubuque is known to you all. We miss his hearty laugh and genial smile.

The greater cancer committee had a meeting December 17, 1944, in Des Moines. The subject discussed was that of the cancer clinic problem. It was to the effect that the cancer clinics are not being used as extensively as they should be. They take care of about 1,000 patients a year. The tumor clinics are open to everyone for diagnosis when referred by a physician, regardless of financial status. We hoped to have ten tumor clinics, but lack of trained personnel has prevented. The doctors just send indigents to them at present. They don't understand that they can send anyone for diagnosis.

We sincerely regret the resignation of Mrs. O'Brien as State Commander of the Field Army. She placed heart and soul in the lay educational program. We are greatly indebted to her for her patience and perseverance through the years.

Dr. Morgan has been acting as chairman for the Women's Field Army, which hereafter will be known as the Field Army for Cancer Control. He spoke of the controversy with the national society for the past several years, and of the recent shakeup in the organization. The new emphasis will be on research, with some money for cancer clinics and some for education. He felt we in Iowa need a full time paid director for the Field Army, to be paid for by Field Army funds. He said the setup would be on the same order as the tuberculosis associations, but the medical profession should retain control. He felt that a full time director would raise more funds, do more work and would be a benefit.

It was moved that the Cancer Committee approve the employment of an individual, full time, to act as

director for the Field Army to be paid for by Field Army funds. Motion was seconded and carried. Mrs. C. V. McCarthy of Mason City has been chosen as the New State Commander and Executive Director.

The annual fund raising campaign of the Field Army will be held this year in April. Mr. John A. Johnson of Des Moines is serving as the State Campaign Chairman. Dr. E. G. Zimmerer of the Iowa State Department of Health is editing the Cancer Bulletin.

We gladly welcome the new personnel in the very important work of educating the general public in the subject of cancer.

James C. Hill, Chairman

REPORT OF THE FIELD ARMY, IOWA DIVISION

One meeting of the State Cancer Committee and the Executive Board of the Field Army was held in the office of Dr. E. D. Plass at the University Hospital, Iowa City, January 22, 1944. Those present were, in addition to Dr. Plass, Dr. J. C. Hill, Dr. A. W. Erskine, Dr. F. P. McNamara, Dr. H. W. Morgan, and Mrs. Arthur V. O'Brien.

The 1944 campaign was discussed. The plan as originated by the National organization was explained by the State Commander. On motion the plan was approved.

The Iowa Cancer bulletin was issued only twice, the mail campaign letter appeal taking the place of the April issue, and Dr. McNamara's death in July delaying the fourth issue.

Two representatives were sent to the Regional Conference held in Chicago in February, Mrs. Alan Sigman and her co-captain.

At the request of the Executive Committee I have remained with the Army as secretary, taking care of reports, all letters, bookkeeping, etc.

1944 analysis of lay contributions and memberships:

County	Campaign Funds
DISTRICT NO. 1	
Allamakee	\$ 1.00
Bremer	6.00
Clayton	2.00
Chickasaw	2.00
Floyd	136.00
Mitchell	55.00
Total	\$ 202.00
DISTRICT NO. 2	
Butler	\$ 25.00
Cerro Gordo	81.00
Franklin	3.00
Hancock	44.00
Winnebago	4.00
Worth (Manly)	59.00
Wright	3.00
Total	\$ 219.00
DISTRICT NO. 3	
Clay	\$ 6.00
Emmet	1.00
Lyon	23.00
O'Brien	18.00
Osceola	51.00
Pocahontas	6.00
Sioux	72.00
Total	\$ 177.00
DISTRICT NO. 4	
Buena Vista	\$ 76.72
Carroll	1.00
Cherokee	1.00
Crawford	1.00
Ida	1.00
Plymouth	37.50
Sac	3.00
Woodbury	23.00
Total	\$ 144.22
DISTRICT NO. 5	
Boone	\$ 1.00
Guthrie	1.00
Polk	481.00
Story	1.00
Webster	2.00
Total	\$ 486.00
DISTRICT NO. 6	
Benton	\$ 3.00
Black Hawk	6.00
Marshall	12.20
Poweshiek	3.00
Total	\$ 24.20
DISTRICT NO. 7	
Cedar	\$ 11.00
Clinton	1.00
*Dubuque	1,382.08
Johnson	201.00
*Linn	1,193.30
Jones	2.00
Total	\$2,790.38
DISTRICT NO. 8	
Jefferson	\$ 2.00
Lee	11.00
Van Buren	2.00
Washington	24.50
Total	\$ 39.50
DISTRICT NO. 10	
Adair	\$ 2.00
Adams	3.00
Madison	1.00
Ringgold	1.00
Taylor	2.00
Warren	1.00
Total	\$ 10.00
DISTRICT NO. 11	
Cass	\$ 1.00
Fremont	14.00
Montgomery	2.00
Pottawattamie	25.50
Shelby	1.00
Total	\$ 43.50
Miscellaneous enlistments	\$ 13.00
Total as of December 31, 1944	\$4,148.80

*Denotes counties having exceeded their quota, \$1.00 for every one hundred population.

Analysis of contributions and memberships for doctors and their wives:

DISTRICT NO. 1	
Bremer	\$ 10.00
Chickasaw	4.00
Clayton	11.00
Fayette	10.00
Floyd	9.00
Howard	2.00
Winneshek	18.00
Total	\$ 64.00
DISTRICT NO. 2	
Butler	\$ 6.00
Cerro Gordo	37.00
Franklin	2.00
Humboldt	7.00
Kossuth	10.00
Winnebago	7.00
Worth	2.00
Wright	9.00
Total	\$ 80.00
DISTRICT NO. 3	
Clay	\$ 5.00
Dickinson	11.00
Emmet	8.00
Lyon	2.00
O'Brien	8.00
Osceola	10.00
Palo Alto	3.00
Pocahontas	6.00
Sioux	12.00
Total	\$ 65.00
DISTRICT NO. 4	
Buena Vista	\$ 6.00
Carroll	6.00
Cherokee	6.00
Ida	10.00
Monona	3.00
Plymouth	6.00
Sac	7.00
Woodbury	38.00
Total	\$ 82.00
DISTRICT NO. 5	
Boone	\$ 10.00
Calhoun	14.00
Dallas	14.00
Greene	6.00
Hamilton	7.00
Guthrie	5.00
Polk	87.00
Story	7.00
Webster	13.00
Total	\$ 163.00
DISTRICT NO. 6	
Benton	\$ 15.00
Black Hawk	17.00
Grundy	1.00
Hardin	7.50
Iowa	7.00
Jasper	28.00
Marshall	11.00
Poweshiek	7.00
Tama	7.00
Total	\$ 100.50
DISTRICT NO. 7	
Buchanan	\$ 6.00
Cedar	8.00
Clinton	20.00
Delaware	8.00
Dubuque	69.00
Jackson	11.00
Johnson	59.00
Jones	5.00
Linn	56.00
Total	\$ 242.00
DISTRICT NO. 8	
Des Moines	\$ 12.00
Henry	4.00
Jefferson	4.00
Lee	10.00
Louisa	1.00
Muscatine	10.00
Scott	24.00
Van Buren	2.00
Washington	4.00
Total	\$ 71.00

DISTRICT NO. 9

Keokuk	\$ 12.00
Lucas	1.00
Mahaska	2.00
Marion	9.00
Monroe	4.00
Wapello	16.00
Wayne	2.00

Total.....\$ 46.00

DISTRICT NO. 10

Adair	\$ 2.00
Adams	2.00
Decatur	2.00
Madison	2.00
Ringgold	10.00
Union	9.00
Warren	6.00

Total.....\$ 33.00

DISTRICT NO. 11

Audubon	\$ 7.00
Cass	10.00
Fremont	5.00
Harrison	1.00
Montgomery	12.00
Page	8.00
Pottawattamie	18.00

Total.....\$ 61.00

Miscellaneous 1.00
Total as of December 31, 1944.....\$1,008.50

ANNUAL FINANCIAL REPORT

From January 1, 1944, to January 1, 1945

Balance in Council Bluffs Savings Bank, January 1, 1944.....\$1,029.09

RECEIPTS

Enlistments (lay and doctors).....	\$2,180.00
Memorial Fund donations.....	700.00
Contributions (teas, tag day, etc.).....	2,277.30
Pastmaster check (unused).....	25.00

\$5,182.30

Total.....\$6,211.39

EXPENSES

Thirty per cent to National Society.....	\$ 396.00
Office supplies	19.66
Telephone, telegraph, postage.....	111.20
Stenographic assistance	658.10
Organization	501.68
Bulletins	443.04
Mail campaign expense.....	1,561.79
Memorial Fund bank box.....	3.60
Exhibits	2.84
Miscellaneous (storage on materials).....	43.56

Total.....\$3,741.47

Balance in Council Bluffs Savings Bank December 31, 1944.....\$2,469.92

In special Memorial Fund at Council Bluffs Savings Bank.....\$1,750.26

Respectfully submitted,

Mrs. Arthur V. O'Brien, Acting Commander

REPORT OF THE COMMITTEE ON INDUSTRIAL HEALTH

There have been several meetings on industrial hygiene throughout the state during the past year. We wish to call your attention to the following, which is of particular interest. For the first time in Iowa, an industrial hygiene course, supplemented by "in-plant" experience, has been provided for nurses. This course was inaugurated by Iowa Methodist Hospital in Des Moines. The course was made possible through the cooperation of the Division of Industrial Hygiene, Iowa Department of Health. Lectures were given by Dr. Bruce Brown, Acting Medical Director, Mr. N. C. Burbank, Jr., Industrial Hygiene Chemist, and Mrs. Eva W. Hague, Industrial Nursing Consultant. The lectures were followed by two weeks of full-time participation in the industrial nursing program conducted at the Des Moines plant of the U. S. Rubber Company.

It is rather difficult for the profession in Iowa to realize that Iowa has more people employed industrially than the State of Connecticut, because the name Connecticut is synonymous with industry.

Your committee can only suggest that the profession familiarize itself with the hazards of industry whenever it may have the opportunity.

James E. Reeder, Chairman
James G. Macrae
Charles H. Cretzmeyer

REPORT OF THE SPEAKERS BUREAU COMMITTEE

To the Members of the Council:

The Speakers Bureau has conducted several meetings of real merit during the past year, and we are pleased to submit the following report:

Many of the county medical societies showed films which were procured through the Bureau. In conjunction with these films, local physicians prepared pertinent material and conducted interesting discussions. Joint meetings comprised of several county societies were held in various sections of the state, and at these the programs usually consisted of two or three scientific presentations and an address on State Society affairs relating to the future of medical practice.

During the past year one statewide session was arranged by the Bureau in cooperation with the staff of Schick General Hospital. The wartime conference was well attended, and the program presented some of the most recent developments in the rehabilitation of wounded servicemen. This was one of the first meetings of its kind, and we are grateful to those who helped make it possible.

Medical lectures were arranged for several lay organizations. Among the groups requesting our assistance were service clubs, Red Cross Instructors, women's clubs, and a Nurse's Aide class.

A medical program was presented each week over radio stations WOI at Ames and WSUI at Iowa City. These non-technical broadcasts were prepared by various members of the State Society, and we believe the material they contained was of educational value to our listeners. Upon request copies of the talks were mailed to 1,289 members of our audience.

The members of the Bureau appreciate the willing cooperation we have received from physicians throughout the state. It is gratifying to know we have your support.

Joseph B. Priestley, Chairman
Thomas F. Hersch
Walter R. Brock
James Dunn
Roy C. Gutch

REPORT OF THE TUBERCULOSIS COMMITTEE

The Committee on Tuberculosis has been unable to hold a formal meeting this year. However, contact and liaison has been maintained with other organizations, societies and individuals interested in the field of tuberculosis in Iowa. During the year past the chairman of your committee has served as President of the Iowa Tuberculosis Association, and has also had opportunity to have a rather close associa-

tion with the Director of the Division of Tuberculosis of the State Department of Health. Through these associations your society has been able to assist in the formation and development of policies in the tuberculosis control program in Iowa during the past year.

J. Carl Painter, Chairman

The following reports were then accepted by *motions made, seconded and passed* without discussion: Secretary, Treasurer, Board of Trustees, Council, and Delegates to the American Medical Association.

It was *moved* that the report of the Committee on Constitution and By-laws be accepted and acted upon at the Thursday morning session. *Motion was seconded, put to a vote and carried.* The executive secretary read the report so that the House would be familiar with its contents.

The Speaker: Is there a report from the Finance Committee?

Dr. McClure: The Finance Committee had no meeting this year, and we recommend that the House accept Widdup and Company's audit for 1944 and let the committee go over the books for 1944 and 1945 and report on both next year. *I so move.*

The motion was seconded and carried.

The report of the Medical Economics Committee was *accepted*, as was the report of the Committee on Medical Education and Hospitals, with Dr. F. A. Hennessy reserving the right to comment on it Thursday.

Dr. Macrae read the report of the Committee on Necrology while the House stood in respect.

Dr. Thornton: We have a boy from Waterloo who lost his life in France. He did not have time to become affiliated with our Society before he was taken into service, but I believe he should be recognized by the State Society.

Dr. M. C. Hennessy: We had a young man who wanted to pass a certain board and had to have membership in some county society before he was eligible to take the examination. We passed a motion in our county society making such physicians members of the county medical society upon application, and keeping them as such until they are discharged from service, when they will have to re-apply the same as any new physician.

The executive secretary explained that a good many county societies were waiving dues for their young physicians who were going directly into service, and that the state medical society was glad to do the same thing, thus bringing the young men into organized medicine at once.

Dr. Suchomel: Linn County has made all legal physicians residents of the county members of the society.

Dr. Bernard: The consensus is that young men should be taken into the county medical society and as such they will be a member of the Iowa State Medical Society.

Dr. L. F. Hill: We could carry a notice to that effect in the JOURNAL.

The report of the Publications Committee was *accepted*.

Dr. Billingsley: I *move* the report of the Legislative Committee be accepted as it appears in the handbook, and would like to give the following supplemental report.

Supplemental Report of the Legislative Committee

Now that the Legislature has adjourned you may be interested in having a brief outline of some of the bills in which we were interested during the last session.

S. F. 128. This was our medical service plan bill, and you are all familiar with the fact that it passed both houses of the Legislature unanimously.

S. F. 391—H. F. 282 (Companion Bills). These bills provided for county boards of health. The Senate bill passed the Senate, but was defeated in the House. A hearing was held before the public health committee of the House on the original proposal as made by the State Department of Health. This original proposal combined the proposed county boards of health with the county health units set up under Chapter 107.1 and provided for a tax levy to support the county health units. Considerable opposition was voiced at the hearing and the State Department of Health eliminated from the bill most of the objectionable features. However, the opposition to the original proposal carried on through the session principally because of a misinterpretation by the Health Department on the county health statute. The representatives from the Health Department earnestly and sincerely represented to the members of the Legislature that the county health unit plan is purely optional, giving

the inference that cities and towns could not be required to come under the county health unit. However, the statute clearly provides that the board of supervisors can establish a county health unit which would bring cities and towns under the plan. Certain members of the House of Representatives were fearful that establishment of the county boards of health would encourage counties to adopt the county unit plan, thus bringing the cities and towns virtually under the county board of health and eliminating the local city boards of health.

I believe that in the next session the county board of health bill can be passed if Chapter 107.1 is also amended at the same time to eliminate the powers of boards of supervisors to compel cities and towns to come under the county health unit plan without their consent.

S. F. 55—H. F. 80 (Companion Bills). These bills prohibited the "quotation of a guarantee, price, terms or other special inducement prior to consultation." We did not oppose this bill in its entirety. We did, however, point out that under this bill we could not operate our medical service plan and that the bill would make illegal the arrangements now existing between the county medical societies and boards of supervisors for care of indigents on definite fee schedules; also the arrangements between doctors and insurance companies for examinations, and between railroad companies and local physicians and surgeons; the hiring of nurses by hospitals on fixed salaries and likewise doctors and pathologists giving x-ray treatments. We made it clear that if the bill were to be passed it would have to be amended to take care of these situations. This was, of course, a material factor in defeating the bill. This bill died in the House sifting committee.

S. F. 56—H. F. 81 (Companion Bills). These bills were more or less complementary to S. F. 55—H. F. 80 but were aimed directly at the practice of optometry. These bills added as a further definition of the practice of optometry "persons, firms or corporations who offer prescription spectacles, eyeglasses or parts thereof to the general public." We did not oppose this bill until after it passed the House. We then discovered it would cause a serious handicap to doctors prescribing eyeglasses, particularly doctors in larger cities. General practice is for the doctor to prescribe glasses for the patient, and the patient to take the prescription to the optical company. The optical company does the rest of the detail work, such as fitting the glasses to the patient, and the optical company is clearly offering prescription spectacles to the public. If the bill had passed, the doctor would have had to transmit the prescription to the optical company himself, and had the glasses returned to him for fitting to the patient, which might require three or four trips. The doctor would have had to sell the glasses directly to the patient. The result would have been unfortunate and probably would have encouraged people to go to the advertising optometrists where they could have an eye test and the glasses manufactured and fitted in the shop. This bill passed the House but died in the sifting committee of the Senate.

S. F. 294. This bill would have amended the general practice act and would have given the examining board of a profession the authority to review the renewal of a license. We felt this placed too much authority in the hands of the examining board and prefer the present law which places the power of revoking a license in the district court where the licensee has the full protection of the courts. This bill died in the sifting committee of the House.

Perhaps the foregoing explanations will outline a little of the Committee's activities during the past session of the Legislature.

The published and supplemental reports of the Legislative Committee were *accepted* by the House.

The report of the Baldrige-Beye Committee was *accepted*, and Dr. Blerring gave a report for the Historical Committee.

Report of the Historical Committee

It has been possible to add several interesting chapters to the medical history of Iowa as published in the JOURNAL of the Iowa State Medical Society. One of the outstanding contributions has been the history of medicine in Wapello County prepared by Dr. Clyde A. Henry of Parson. The photographs of early physicians as well as the presidents of the State Society from Wapello County were unusual and when this history is completed it will be one of the most comprehensive stories of Iowa medicine.

Since the last meeting, four past presidents of the Society have passed from our midst, Lee Wallace Dean, Frank P. Winkler, Francis P. McNamara, and William W. Bowen. The biographic data published in appreciation of their distinguished contribution to Iowa medicine con-

stituted valuable additions to the history of medical progress in this State.

The death of William W. Pearson in February of last year, a specialist for nearly fifty years in the diseases of the eye, ear, nose and throat, being located in the same office all this time, reflected an interesting chapter in the development of medical education and specialty practice in this state.

In the April number of last year appeared an account, with photographs, of the first dean and first medical faculty of the College of Medicine, State University of Iowa, which was an interesting addition to the history of our medical school.

The Committee wishes to express its appreciation to the members of the Society who have contributed toward the completion of this interesting record of Iowa Medicine.

Walter L. Bierring, M.D., Chairman
Henry G. Langworthy, M.D.
Murdock Bannister, M.D.
John T. McClintock, M.D.
Frank E. Sampson, M.D.

The report of the Historical Committee *was accepted* as given.

The reports of the Committee on Maternal and Child Health, Medical Library Committee, Committee on Medical Service and Public Relations, Postwar Planning, and Public Relations Committees *were accepted* as published in the Handbook. Also *accepted* without comment were the reports of the Cancer Committee, Committee on Industrial Health, Speakers Bureau, and Tuberculosis Committee.

The Speaker next called for a report of the Committee on Reorganization of Committees.

Dr. M. C. Hennessy: This committee was appointed by the Executive Council on my suggestion that we study the various committees of the State Society, what they are doing, and what their duties should be. The president, president-elect and secretary made up that committee. We put much study and thought into it. You will remember that the Postwar Planning Committee brought the matter to a head by asking for a definition of its duties. We gave considerable thought to that committee, appointing Doctors Harkness, MacEwen, and Putnam. It sounded like a good idea but when you tried to pin down what they should do, there was a conflict with other committees. The Executive Council gave it a thorough going over but did not arrive at a very satisfactory answer. On checking the other committees we found some committees had not had meetings at all. Some had nothing that they could function on. Several committees did not belong to the State Medical Society setup. When we prepared that report for the Handbook, we thought it would solve a lot of problems. We thought the committee might have subcommittees functioning under it, to which the various problems could be referred. The idea of that was that we could have better cooperation, better coordination and that it would mean something to the Central office. I am sure Dr. Parker and Mary will bear me out that a great many times during the year things come into the central office that require attention, and the problem they have to solve is, "To just what committee will this particular problem be referred?" We have a Public Policy Committee. We have a Medical Economics Committee. We have a Legislative Committee. We have different kinds of committees, with somewhat overlapping functions. It really has been difficult for anyone in the central office or any place else to make a decision so that no one would feel he had his toes stepped on if some other committee than his was given a certain job to do. In this committee report we have tried to sell you the idea of eliminating some committees and possibly making some others a little stronger, thus eventually resulting in greater efficiency in the handling of the affairs of the State Society.

Mr. Speaker, I *move* that the report of the Committee on Reorganization of Committees as it appears in the Handbook be accepted.

... The motion *was seconded, put to a vote and carried.*

The Speaker: We will now hear the Supplemental Report of the Committee on Constitution and By-Laws. If there are any questions that arise as Miss McCord reads the various changes which are proposed, we would like to have them cleared up at this time rather than wait until the whole report is read. Consequently, we will accept interruptions.

Executive Secretary McCord: "The Committee on Constitution and By-Laws has the following recommendations to make in regard to the changes suggested by the Committee on Reorganization of State Society committees, and presents them to you now so that they may lay over

the necessary day and be voted on tomorrow in accord with the action of the House in accepting or rejecting the recommendation of that committee.

"The recommendations as to changes are numbered to agree with each change, and are as follows:

"1. That Chapter VIII, Section 1, be changed by dropping the Committee on Medical Economics and substituting therefor the Committee on Medical Service and Public Relations, this committee to consist of at least seven members; and that the name of the Committee on Public Policy and Legislation be changed to read 'Committee on Legislation'."

The Speaker: Is this clear? Any questions?

Executive Secretary McCord: "2. That Chapter VIII, Section 3, be changed to read 'Committee on Legislation' and also in line 11, the words 'and national' shall be dropped and the word 'and' shall be inserted before 'state' in place of the comma now separating 'local' and 'state.'"

I will read that to you so you will understand what that change is:

"It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall utilize every organized influence of the profession to promote the general influence on local and state affairs, and elections."

The Speaker: Are there any questions about that? You can discuss it with much more intelligence tomorrow if you have a clear understanding tonight as to what this means. It limits the work of the Legislative Committee to Iowa legislation. That is the gist of the whole thing.

Executive Secretary McCord: "3. That Chapter VIII be amended by substituting for the present Section 11 a new one to read as follows:

"The Committee on Medical Service and Public Relations shall consist of at least seven (7) members who shall serve in this state in a similar capacity as and in co-operation with the Council on Medical Service and Public Relations of the American Medical Association, and shall have referred to it all matters of medical economics, medical services, public relations with other health agencies and the public, contact with other state and sectional societies, and matters of national legislation affecting public health. It shall have a subcommittee on medical economics, a subcommittee on medical service plans, a subcommittee on public relations, a subcommittee on national legislative matters, and such other subcommittees as may from time to time be necessary."

The Speaker: Is that clear? Any questions? I might add that this is in line with the committees of Minnesota, Wisconsin and Illinois, which have a similar duty. In Illinois they call theirs the Council.

Is this clear? Any questions?

Executive Secretary McCord: "4. That Chapter VII, Section 1, be changed to read as follows:

"The Council shall hold at least one meeting for organization purposes during the annual session of the Society, and such other meetings as may seem necessary. It shall elect a chairman and secretary and keep a permanent record of its proceedings. It shall, through its chairman, make an annual report to the House of Delegates at such time as may be provided."

The Speaker: Any member of the Council want to ask questions concerning this? Is it clear?

Dr. J. E. Reeder: We have been discussing that change for the last ten years. I am sure it is very acceptable.

Executive Secretary McCord: "5. That a new Chapter be set up, outlining the duties of the Executive Council. This might be numbered Chapter VIII, with the present Chapter VIII being made Chapter IX, the same change to be made for all succeeding chapters."

The Speaker: Is that clear?

Dr. G. V. Caughlan: That is the Executive Council, Section 2, Article V of the Constitution?

Executive Secretary McCord: It is a repetition of that. At the present time we don't have a chapter in the By-Laws outlining the duties of the Executive Council. This would merely repeat it in the By-Laws and give it two more sections which now are carried under the Council.

Dr. C. A. Boice: Does that give the Executive Council full authority to go ahead with a meeting such as we are having now, without calling in any of the other delegates?

Dr. Caughlan: That is between the regular meetings of the House of Delegates, isn't it?

The Speaker: During the interim.

Dr. Boice: Will you read that again? We are not having a regular meeting now.

Executive Secretary McCord: This one section is the same as it is now for the Executive Council. It gives it the full authority and power of the House of Delegates in

the interim between duly authorized sessions of the House of Delegates.

Dr. Boice: That is the way it has been.

Executive Secretary McCord: Exactly, but it is setting it up in the by-laws.

Dr. Boice: It is putting it in the by-laws and also in the Constitution?

Executive Secretary McCord: Yes.

The Speaker: Any questions concerning this? These will be taken up again tomorrow morning. If there are any questions about it, either ask Miss McCord or Dr. Parker or Dr. Hennessy so that these can be cleared up. I have always felt that any changes in the by-laws should deserve close attention and close scrutiny. Consequently, we would like to have you know what this is all about. Any more comments upon this? Is there any new business? Any old business?

Executive Secretary McCord: I think not.

The Speaker: We will pass to new business.

Dr. Caughlan: We will have a period for new business tomorrow, won't we?

The Speaker: Yes.

Dr. Caughlan: We will have a report of that committee that is going to report on Dr. Hennessy's recommendations? You appointed a committee?

The Speaker: I appointed a committee. It reports tomorrow morning.

Dr. Caughlan: Any action can be taken at that time on any recommendation he makes?

The Speaker: That is right. No more new business? We will have read the membership of the Nominating Committee which will meet immediately after this meeting in Parlor A.

Secretary Parker: The Nominating Committee consists of:

First District—O. H. Banton.

Second District—R. M. Wallace.

Third District—W. R. Brock.

Fourth District—C. F. Obermann.

Fifth District—E. B. Bush.

Sixth District—E. E. Magee.

Seventh District—J. W. Dulin.

Eighth District—L. A. Coffin.

Ninth District—C. A. Henry.

Tenth District—I. K. Sayre.

Eleventh District—Kenneth Murchison.

The Speaker: Has anyone anything to offer for the good of the organization? If not a motion to recess is in order.

Dr. Caughlan: When do we meet in the morning?

The Speaker: Ten o'clock in the morning. The meeting is recessed.

... The meeting recessed at ten o'clock ...

Thursday Morning, April 19, 1945

The meeting reconvened at 10:10 o'clock, Ransom D. Bernard presiding as Speaker.

The Speaker: The first order of business is the roll call.

Roll call showed the following delegates and officers present:

First District: O. H. Banton of Charles City, F. A. Hennessy of Calmar, and P. E. Gardner of New Hampton.

Second District: L. R. Woodward of Mason City, C. A. Newman of Bode, and R. M. Wallace of Algona.

Third District: W. R. Brock of Sheldon, M. T. Morton of Estherville, and T. L. Ward of Arnolds Park.

Fourth District: R. N. Larimer of Sioux City, C. F. Obermann of Cherokee, and J. R. Dewey of Schaller.

Fifth District: L. F. Hill of Des Moines, E. M. Kersten of Fort Dodge, and E. B. Bush of Ames.

Sixth District: E. E. Magee of Waterloo, A. D. Woods of State Center, and J. W. Billingsley of Newton.

Seventh District: J. C. Painter of Dubuque, J. W. Dulin of Iowa City, and T. F. Suchomel of Cedar Rapids.

Eighth District: L. A. Coffin of Farmington, W. C. Goenne of Davenport, and L. C. Howe of Muscatine.

Ninth District: D. L. Grothaus of Delta, C. A. Henry of Farson, and E. C. McClure of Bussey.

Tenth District: A. W. Brunk of Prescott, I. K. Sayre of St. Charles, and J. H. Gasson of Bedford.

Eleventh District: Kenneth Murchison of Sidney and G. V. Caughlan of Council Bluffs.

Officers: M. C. Hennessy, R. D. Bernard, F. L. Knowles, E. W. Anderson, R. L. Parker, J. A. Downing, L. L. Carr, C. H. Cretzmeyer, J. B. Knipe, J. E. Reeder, E. F. Beeh, J. C. Hill, H. A. Housholder, C. A. Boice, R. C. Gutch, J. G. Macrae, O. J. Fay, and W. A. Sternberg. Also present were the two delegates to the American Medical Association, T. A. Burcham and T. F. Thornton.

The Speaker: Fifty members are seated, gentlemen.

Minutes of the previous meeting were read.

The Speaker: You have heard the minutes. Any additions or corrections? If not, they stand approved. Report of Reference Committee on President's address. That was to be given by Lee Hill, was it not?

Dr. Billingsley: In the absence of Dr. Hill, I will read that report.

Report of Reference Committee on President's Address

Your Reference Committee has reviewed with interest the report of President M. C. Hennessy to the House of Delegates and commends him for his initiative and courage in pointing out ways in which improvements may be brought about in conducting affairs of the Society. The Committee makes the following recommendations concerning the specific proposals in his address:

1. Your Reference Committee recommends the adoption by this House of the proposal that each president and president-elect be required to address the House of Delegates concerning the affairs of the Society.

2. Your Reference Committee recommends that the voting structure of the House of Delegates remain as at present.

3. Your Reference Committee recommends that the Speakers Bureau be instructed to plan its programs in such a way that participation in scientific programs by members of county medical societies will be encouraged.

4. Your Reference Committee recommends that the senior member of the delegation to the American Medical Association make a brief report of matters of particular interest to Iowa physicians in the JOURNAL of the Iowa State Medical Society. This report must be submitted within sixty days and published not later than ninety days following the meeting of the American Medical Association.

5. Your Reference Committee recommends that the election of delegates to the American Medical Association remain as at present.

6. Your Reference Committee wholly favors President Hennessy's recommendations concerning censorship, closer relationship between the State Society and the College of Medicine, the State Department of Health, and other state health agencies, and expresses its belief that these criticisms will be adequately covered by the adoption of the reorganization plan suggested by the Committee on Committees.

Lee F. Hill, Chairman

Walter A. Sternberg

John W. Billingsley

Dr. Billingsley: Mr. Speaker, I move the adoption of the committee report.

... The motion was seconded ...

The Speaker: Any remarks?

Dr. Suchomel: I believe we should take a little time in considering the adoption of this report. There is one item recommended by our President that I think is worthy of discussion. That is the alteration in the voting structure of the House of Delegates. You have the opinion of three delegates in the committee but you haven't heard the rest of them. I wish to move the following amendment: That the report, except that portion dealing with the change in the voting structure of this House of Delegates, be adopted.

The Speaker: Do I hear a second?

Dr. Caughlan: I second it.

The Speaker: You have heard the amendment.

Dr. Suchomel: I would like to call on Dr. Hennessy to give his views again.

President Hennessy: In my report, I made the recommendation that the House of Delegates consist solely of the delegates elected by each component society, with the voting power resting solely in their hands, with the President having a vote in case of a tie, and that the elected officials of the State Society be required to be present at all meetings but to have no voting power. Is that the point that you wanted me to express?

Dr. Suchomel: Yes. Tell us why you arrived at that.

President Hennessy: I arrived at that from this standpoint. In my opinion, the way it is now, it is not entirely democratic. Your elected officials constitute, if I am not mistaken, eighteen members—

Secretary Parker: Twenty.

President Hennessy: —of the House of Delegates at the present time. In my report, I said if anyone were to ask me whether I thought those elected officials had ever teamed up on any proposition, I would frankly have to answer "No, never to my knowledge," but I can see possibilities of its happening. I felt if a couple of high pressure politicians got in the saddle, they could pretty much do what they pleased with the Iowa State Medical Society

if they were able to control those eighteen votes, and they could possibly do that by getting certain individuals elected. I never felt that was democratic. I never liked it from the first day I attended a meeting of the House of Delegates, over the years, and I still don't like it.

Dr. L. R. Woodward: Paragraph 2 of the Reference Committee's report says:

"Your Reference Committee recommends that the voting structure of the House of Delegates remain as at present."

If it had recommended a change, we would have a lot to argue about, because then we would have to change either the constitution or by-laws. Unless we do want to insist on a change, I think the committee report can be adopted as is.

The Speaker: We are discussing the amendment introduced by Dr. Suchomel. This is a very important thing, and it has been talked about a long time, pro and con. We want this thoroughly discussed.

Dr. L. F. Hill: Mr. Speaker, as one of the members of the committee, I might tell you our reasons for making the recommendation. Frankly, I would say that this part of Dr. Hennessy's report occupied more of our time than any of the other recommendations, because we felt it was the one that should be given the most consideration. We considered the important work done by the members of the Executive Council in the interim, particularly the fact that they had the running of this Society between sessions of the House of Delegates. We felt that the part they played in Society affairs and their knowledge was extremely important to this House of Delegates, and, if they were deprived of a vote, they might not become so much interested in being present at meetings of the House of Delegates. There is no way of requiring them to be here. But eleven men having a vote, who are cognizant of the affairs of the House of Delegates, who have been doing the work, were, we felt a very valuable nucleus to deprive of a vote. That same thing, to a lesser extent, applies, also, to the Board of Trustees, to your American Medical Association delegates and to the Treasurer. We also felt that except in a meeting like this, there wasn't much risk of those twenty votes being top-heavy in a total of 125 votes.

Our particular reason though, Mr. Speaker, for recommending that the voting procedure stay as at present in the House of Delegates was that the members of the Executive Council, particularly because of the large amount of work they put in, the responsibility they assume and their knowledge of the affairs of the Society, are entitled to a vote in the affairs of the Society.

Dr. C. A. Boice: Mr. Speaker, might I add a word? This Society has had a House of Delegates since 1903, forty-two years. I have been honored by being a member of the Council more than half of that period. I have missed, outside of the annual meeting last year, but one Council meeting in twenty-five years. Dr. Hennessy remarked he thought the Executive Council might play politics. I just want to tell you that, in all the years I have been on the Council, the fact that there was to be an election never has been mentioned in the Council but one time. Back in 1911 we did talk about a certain man who we didn't think was doing his work right. Never since that time has anyone in the Council asked who the candidate was or for whom we should vote. Because of the fact that the Council has been in existence for forty-two years and has only once discussed an officer, I don't think there is very much danger in Charlie Hennessy's fear that the Council might play politics.

President Hennessy: For one hundred and fifty years it was a foregone conclusion that a President would never run but twice. After one hundred and fifty years, that was changed.

Dr. W. C. Goenne: I should like to ask a question. A man is a member of the Executive Council. His county society elects him as a delegate. Does that man have two votes or one vote? Does he have a vote as a delegate from his county society, and does he also have a vote because he is a member of the Executive Council?

The Speaker: One.

Dr. Goenne: Is there anything in your constitution that says anything about that?

Executive Secretary McCord: In the years that I have been here, we have seated them in one office only and usually the alternate in the county society has been seated.

Dr. Goenne: That is true, Miss McCord, but still, is there anything in the constitution and by-laws that states a man cannot have two votes?

Executive Secretary McCord: I don't think there is any statement to that effect.

Dr. Goenne: There would be no reason, then, why any man who was a member of the Executive Council and

also was a delegate from his local county society could not come here and have two votes, unless there is something in your constitution and by-laws which covers that point. I also want to commend Dr. Hennessy for his recommendation. I think it is one of the most constructive things that has been suggested to this House of Delegates in a good many years. As I look at your members of the Council, they are, as a matter of fact, really servants of the House of Delegates. I can't conceive of anyone who has the power to bring in a resolution as the Council can, or your Board of Trustees, to the House of Delegates and ask for its approval or disapproval and, at the same time, have the right to vote on the subject that they bring up. I am heartily in favor of Dr. Hennessy's recommendation. I think it is one of the finest things that has been brought to the attention of the House of Delegates in a good many years. I would like to have that two-vote point cleared up, if it is at all possible.

Dr. Suchomel: Mr. Speaker, I have been a member of the House of Delegates for about twenty years. I recall in the past numerous occasions when the presiding officer cautioned any officer or councilor, if he was a delegate, to vote two votes at elections. I have heard that. Dr. Boice, I am not saying anything against the Council. But, as Dr. Goenne pointed out, there are twenty votes in the Executive Council. I have never seen a full representation of the House of Delegates in all my experience in the House. As a matter of fact, at the last session, when it comes to election of officers, we are lucky to have fifty or sixty delegates present and voting. You look in your Handbook and you will find five or six counties that have not even chosen delegates. You can imagine what twenty votes would do with sixty delegates present, which is a lot for this particular session, that is when we have full representation. I believe that we should be permitted to take this back to our county societies for thorough discussion. I believe it should be referred to the Committee on Constitution and By-Laws with instruction to prepare amendments to permit this change.

Dr. Coughlan: The statement is made that there are twenty-three votes besides the delegates. On the roll call, those able to vote are the officers, the Councilors, the Trustees, the Delegates to the American Medical Association.

Secretary Parker: Delegates to the American Medical Association don't have a vote. There are twenty votes of officers, eighteen votes in the Executive Council.

Dr. Coughlan: In answer to Dr. Goenne's question about voting power, the only thing I can find in this Constitution is Section 1, Article V, which says:

"The House of Delegates shall be the legislative and business body of the Society, and shall consist of (1), delegates elected by the component county societies, and (2), ex officio, the officers of the Society as defined in this Constitution."

I went through all of this, and that is the only thing I could find about voting power. Dr. Hennessy and I have talked this thing over for a long time. I have been coming to the meetings and I have been a delegate off and on for over twenty years. I have never felt that there has been any abuse of power by the officers of the Society, which includes the Council, but I agree with Dr. Hennessy that it can happen. I think it is not democratic for the delegates to the House or to the State Medical Society to elect officers and then have those officers sit in the position of being able to veto the vote of the individuals who elected them. I want to add my support to the statements made by Dr. Hennessy, Dr. Suchomel and Dr. Goenne about this, and also make this statement. If this report is not adopted, I have prepared an amendment to the Constitution which will be introduced but which cannot be voted upon until next year. In the meantime it will be published in the JOURNAL. If the report is adopted, I assume the House of Delegates doesn't want any change, and it would be foolish to introduce it.

Dr. Goenne: Mr. Speaker, I would like to ask Dr. Coughlan to read again what constitutes the House of Delegates.

Dr. Coughlan: Well, it is Article V, Section 1.

"The House of Delegates shall be the legislative and business body of the Society, and shall consist of (1), delegates elected by the component county societies, and (2), ex officio, the officers of the Society as defined in this Constitution."

Dr. Goenne: As I understand Robert's Rules of Order, Mr. Speaker, a person who is an ex officio member of any body does not have voting power in that body. I may be mistaken. The House of Delegates, as you have heard read, does not consist of the officers. According to that provision, the officers have no right to vote on anything

that is brought up at any of our House of Delegates meetings. I may possibly be wrong on that, but that would be my interpretation of the House of Delegates. It consists of delegates brought in by the component county societies, and the Council are ex officio members. If they are ex officio members, I do not think they have a right to vote.

Dr. J. R. Dewey: There is an aspect of this that I think ought to be brought up by a representative of a rural county, a small one, and that is the matter of the lag between policies formed by the Society and their reference back to the component societies, the proper instruction of the delegates and his intelligent vote on it in the House of Delegates. We have something over ninety county societies.

It has been my observation that the formulation of policies is usually done by this Executive Council and the officers, and the material is referred back to the societies for their intelligent consideration and instruction of their delegate, but we found last fall, when we were here in special session, that not over half of the county society delegates had been intelligently instructed on the matter we came here to consider. Consequently, it would seem to me that if we adopted this change we would be having a House of Delegates acting upon material without benefit of the vote of the men who had formulated the policy, and it might easily be that the natural lag in the democratic process would be still greater. That ought to be considered in considering this proposition.

The Speaker: Miss McCord, how many members were there in the special session?

Executive Secretary McCord: I don't remember.

The Speaker: I think, perhaps, Doctor, the same lag existed in Wright County as in your county. The secretary called me and asked why we were having a special session. The material sent him probably went into the waste basket. I know a lot was mailed. It is pretty hard for the office to go into the ninety-seven counties and see that these letters are properly handled. However, that is off the record as far as this discussion is concerned.

We want more discussion on this. We will talk a little later about this Constitution.

President Hennessy: Would you have the Secretary read Robert's Rules of Order with reference to ex officio. The dictionary says that ex officio means by virtue of office, and makes no statement of any kind about any voting powers. Does Robert's Rules of Order give that interpretation?

Executive Secretary McCord: I will read the whole paragraph here. It is on page 210. "Paragraph 51. Ex Officio Members of Boards and Committees." I am not sure that that is what you are, but that is the heading of the paragraph I am reading.

"Frequently boards and committees contain some members who are members by virtue of their office and therefore are termed ex officio members. When such a member ceases to hold the office, his membership of the board terminates automatically. If the ex officio member is under the control of the society, there is no distinction between him and the other members except where the president is ex officio member of all the committees, in which case it is evidently the intention to permit, not to require him, to act as a member of the various committees, and, therefore, in counting a quorum, he should not be counted as a member. The president is not a member of any committee except by virtue of a special rule, unless he is so appointed by the assembly. If the ex officio member is not under the authority of the society, he has all the privileges, including the right to vote but none of the obligations of membership, as when the governor of a state is ex officio a manager or a trustee of a private academy."

Dr. Suchomel: What was that voting sentence again?

Executive Secretary McCord: "If the ex officio member is not under the authority of the society, he has all the privileges, including the right to vote but none of the obligations of membership."

Dr. Suchomel: Too bad we haven't a good lawyer here. I would like to find out if our officers are under the authority of this House of Delegates.

Dr. Goenne: According to that rule, if the officers are under the authority of the House of Delegates, they do not have the right to vote. Is that correct? Is that your interpretation of it?

President Hennessy: They do have a right to vote.

Dr. Goenne: Read it again, will you please, Mary?

Executive Secretary McCord: I don't think it is very clear. "If the ex officio member is not under the authority of the society, he has all the privileges, including the right to vote, but none of the obligations of membership."

Dr. Goenne: If he is not under the authority of the Society, he has a right to vote. Isn't that what it states?

Executive Secretary McCord: Yes. I don't know whether the sentence ahead of this applies either: "If the ex officio member is under the control of the society, there is no distinction between him and the other members except where the president is ex officio member of all committees."

Dr. Goenne: Then the two statements there, in my interpretation, would be in conflict.

Dr. Suchomel: It is very definite on voting.

Dr. Caughlan: If we vote on approving this report now rather hurriedly, we bar the way to the introduction of an amendment. In order to get on with the business, I suggest that the report be adopted, exclusive of paragraph 2.

Dr. A. D. Woods: Mr. Speaker, supplementing the remarks of the delegate from Sac County, I move that we amend the amendment, to the effect that each delegate take this back to his county society and have it voted upon and bring in the report next year. We will have ample time then to consider it in every county society.

Dr. Caughlan: We want to introduce this amendment at this meeting.

Dr. J. B. Knipe: I second the amendment.

The Speaker: We are discussing the second amendment, the amendment to the amendment. Are you clear on Dr. Woods' amendment?

Dr. L. F. Hill: Please restate it.

... Dr. Woods' amendment to the amendment was read...

The Speaker: Any more discussion? We are voting on the second amendment of Dr. Woods that this thing go back to the county society.

Dr. E. B. Bush: That stops the whole report, or does it just stop that paragraph?

The Speaker: It doesn't stop anything, as far as I can see. It refers it back to the county societies for discussion. Is that right, Dr. Woods?

Dr. Woods: Yes, not only discussion but vote, to bring the vote back next year.

The Speaker: In other words, it is a referendum. Is that what you are driving at?

Dr. Woods: A referendum.

The Speaker: I think, perhaps, we should clear that a little bit, Dr. Woods. We don't know the outcome of this vote. If this thing is killed what are you taking back to your county society?

May I make a suggestion? If you would withdraw that motion and wait until we find what the final vote is, and then refer whatever you wish back to the county societies, it would probably clear the atmosphere.

Dr. Woods: No, we can't do that.

The Speaker: You don't want to do that? Very well. We will vote on Dr. Woods' motion. All those in favor signify by saying "aye". We will have a division. Please raise hands, those in favor. (Fifteen) Those opposed, please raise hands. (Seventeen) *The amendment is lost.*

Now we are voting on the amendment. We should have that read. You may have lost the exact meaning of Dr. Suchomel's amendment.

... Executive Secretary McCord read the amendment introduced by Dr. Suchomel...

Dr. Suchomel: If this amendment carries, then we will vote on a motion to adopt the report of this special committee, with the exception of that portion.

The Speaker: Is that clear? Tom wants to delete a certain paragraph in the report. All those in favor raise their right hand, please. (Twenty) Those opposed, the same sign. (Fourteen) *The amendment is carried.*

We are now voting on the original motion as amended, which will delete the paragraph dealing with the change in the voting structure. Are you ready for the question? All in favor signify by raising your right hand. (Thirty-five) Contrary, the same. *The motion is carried.*

Are there any other reference committee reports? If not, we will pass to supplementary reports of committees not given yesterday. Is there a report coming from the special committee investigating the NPC?

Dr. Suchomel: I rise to a point of order. Under the heading of business procedure, I think you will find election of officers comes right after the adoption of the minutes.

The Speaker: I will rule that we proceed with the schedule as arranged. We have tried to schedule this meeting so as to utilize the time most effectively. Do I hear a report from the NPC?

Dr. Gutch: In compliance with your request of December 5, 1944, we have acted as your committee of the

Executive Council to investigate the National Physicians Committee. We were asked to recommend to the House of Delegates whether or not the Iowa State Medical Society should cooperate with the National Physicians Committee. We beg to report as follows:

We have contacted and asked the opinion of various members of the Iowa State Medical Society, especially in our respective districts, the majority of whom favor our cooperating with the National Physicians Committee. We have also written various members of the board of directors of the National Physicians Committee and personally contacted Dr. William F. Braasch, secretary of NPC, Rochester, Minnesota, and Dr. Edward H. Skinner, one of the board of trustees of NPC, Kansas City, Missouri. Both were very courteous and gave us information which has been very helpful in compiling our report.

A meeting of this committee was held April 8, 1945, at Mason City, with all members present. Information gathered by committee members was presented and discussed and after going into this thoroughly it is the unanimous opinion of this committee that the Iowa State Medical Society should recommend to the House of Delegates that we cooperate with the National Physicians Committee.

R. C. Gutch
L. L. Carr
James B. Knipe

Dr. Gutch: I move the adoption of this report.

The motion was seconded, put to a vote and carried.

The Speaker: Shortly after this report was requested, the Executive Council requested the Committee on Medical Service and Public Relations to bring in two reports. One is on the Association of American Physicians and Surgeons, the so-called Lake County Plan. It was my privilege to contact this Plan and, with your indulgence, I will read the brief summary. I will read it slowly because I want you to catch the implications and the meaning of some of the things they have introduced into their Articles of Incorporation.

... The Speaker read the report pertaining to the Association of American Physicians and Surgeons, Inc. and then read a personal communication from Dr. Detrick.

Dr. R. N. Larimer: I move that this be deleted from the minutes and be sent to each county secretary marked "Confidential".

The motion was seconded, put to a vote and carried.

The Speaker: Are there any more supplemental reports?

Dr. Suchomel: I would like to ask two questions. Is this session regarded, as our by-laws state, as the third morning?

Executive Secretary McCord: No, it isn't.

Dr. Suchomel: It is regarded as the final session, isn't it?

Executive Secretary McCord: This is an interim session, and the final session, the third morning session, is the afternoon session, right after lunch.

Dr. Suchomel: Who got up this agenda?

Executive Secretary McCord: The committee.

Dr. Suchomel: I would like to refer you to Section 3, Chapter V of the by-laws.

The Speaker: This plan was tried out last year and found to be very successful. It gave the House of Delegates time to arbitrate and discuss things. The idea is to give everyone a chance to talk and not be rushed.

Dr. Suchomel: I am not trying to block any discussion here, but your by-laws specifically state that the report of the Nominating Committee and election of officers shall be the first order of business, after the reading of the minutes.

The Speaker: Of what?

Dr. Suchomel: On the third day of the session.

Executive Secretary McCord: That will be this afternoon.

The Speaker: We recessed last night until ten o'clock this morning, to finish up the business.

Dr. Suchomel: It is the last session, then.

The Speaker: No, it is not the last session. I will rule that.

The Postwar Planning Committee hasn't reported. I will read the list of committees: Constitution and By-Laws, Finance, Medical Economics, Medical Education and Hospitals.

Dr. F. A. Hennessy: On Medical Education and Hospitals, Mr. Speaker, no one else is here. I have corresponded with the Chairman of that committee. Since this report came out the Ellender Bill, which is of a good deal of significance to medical men, has been introduced. There was an editorial in our JOURNAL last month on it.

It deals with a very serious problem confronting the deans of medical schools at the present time.

As the Selective Service act now stands, about all the medical students available will be discharged veterans or men of lower qualifications than will meet the standards of medical schools. There is a great fear that many men who have been rejected for admission to medical schools will come up and, with the relaxation of regulations, be admitted to study medicine. The Ellender Bill provides that boys with premedical training be exempted, so that they may study medicine. That is about the substance of it. I feel that this committee should incorporate a recommendation that we as a State Society support the Ellender Bill and so advise our legislators.

The Speaker: Thanks, Dr. Hennessy. Do you make a motion?

Dr. Hennessy: I move that the report be adopted.

The motion was seconded, put to a vote and carried.

Dr. L. F. Hill: That includes notifying our members of Congress?

The Speaker: That will be done through the Committee on Medical Service and Public Relations.

Military Affairs, Public Relations, Scientific Exhibits, Woman's Auxiliary Advisory Committee, Postwar Planning Committee, Reorganization of Committees, Cancer Committee, Industrial Health, Speakers Bureau, Tuberculosis Committee. That completes the list. What will you do with the reports as published in the Handbook, plus the supplemental reports?

Secretary Parker: Mr. Speaker, I move that the reports as published in the Handbook and the supplementary reports as given in this session be approved.

The motion was seconded, put to a vote and carried.

The Speaker: We will now have the proposed changes in the by-laws read.

Executive Secretary McCord: Your Committee on Constitution and By-Laws recommends that a change be made in Chapter I, Section 1, of the By-Laws, so that it will read as follows:

"Section 1. This Society shall consist of members and life members.

"a. Members—The members of this Society shall be the members of the component county medical societies.

"b. Life Members—as defined in the Constitution."

The Speaker: Do I hear a motion?

Dr. Suchomel: I move the adoption of the amendment.

Dr. P. E. Gardner: I second the motion.

The motion was put to a vote and carried.

Executive Secretary McCord: Recommends that Chapter VIII, Section 1, of the By-Laws be changed by dropping the Committee on Medical Economics and substituting therefor the Committee on Medical Service and Public Relations, this committee to consist of at least seven members; and that the name of the Committee on Public Policy and Legislation be changed to read "Committee on Legislation."

Dr. Fay: I move its adoption, Mr. Speaker.

The motion was seconded, put to a vote and carried.

Executive Secretary McCord: That Chapter VIII, Section 3, be changed to read "Committee on Legislation" and, also, in line 11, the words "and national" shall be dropped and the word "and" shall be inserted before "state" in place of the comma now separating "local" and "state".

Dr. Knipe: I move its adoption.

The motion was seconded, put to a vote and carried.

Executive Secretary McCord: That Chapter VIII be amended by substituting for the present Section 11 a new one to read as follows:

"The Committee on Medical Service and Public Relations shall consist of at least seven members who shall serve in this state in a similar capacity as and in cooperation with the Council on Medical Service and Public Relations of the American Medical Association, and shall have referred to it all matters of medical economics, medical services, public relations with other health agencies and the public, contact with other state and sectional societies, and matters of national legislation affecting public health. It shall have a subcommittee on medical economics, a subcommittee on medical service plans, a subcommittee on public relations, a subcommittee on national legislative matters, and such other subcommittees as may from time to time be necessary."

Dr. L. F. Hill: I move its adoption, Mr. Speaker.

The motion was seconded, put to a vote and carried.

Executive Secretary McCord: That Chapter VII, Section 1, be changed to read as follows:

"The Council shall hold at least one meeting for organization purposes during the annual session of the Society, and such other meetings as may seem necessary. It shall elect a chairman and secretary and keep a permanent

record of its proceedings. It shall, through its chairman, make an annual report to the House of Delegates at such time as may be provided."

Dr. J. E. Reeder: I move its adoption.

The motion was seconded, put to a vote and carried.

Executive Secretary McCord: That a new chapter be set up, outlining the duties of the Executive Council. This might be numbered Chapter VIII, with the present Chapter VIII being made Chapter IX, the same change to be made for all succeeding chapters.

That Section 1 of the new Chapter VIII shall read as follows:

"The Executive Council shall have full authority and power of the House of Delegates in the interim between duly authorized sessions of the House of Delegates."

That Sections 3 and 4 of the present Chapter VII be transferred to the new Chapter VIII as Sections 2 and 3 respectively, with the words "Executive Council" substituted for the word "Council" wherever it appears in these sections.

Dr. T. F. Thornton: I move its adoption.

The motion was seconded, put to a vote and carried.

The Speaker: Do I hear a motion to move the adoption of the report as a whole?

Dr. Knipe: I so move.

The motion was seconded, put to a vote and carried.

The Speaker: We will pass to new business. Are there any resolutions?

President Hennessy: Mr. Speaker, I have a resolution I wish to introduce.

"Whereas, The creation of the Council on Medical Service and Public Relations of the American Medical Association is the direct result of a resolution introduced in the House of Delegates of the American Medical Association by the North Central Conference; and

"Whereas, Much of the effective work done in presenting this resolution to the House of Delegates of the American Medical Association was done by Dr. A. W. Adson of Rochester, Minnesota, who later became a member of the Council; and

"Whereas, Dr. A. W. Adson has expressed and continues to express the opinions and ideas of the North Central Conference; and

"Whereas, Dr. A. W. Adson is a candidate for reelection to the Council at the next meeting of the House of Delegates of the American Medical Association; therefore, be it

"Resolved, That the House of Delegates of the Iowa State Medical Society meeting in Des Moines, Iowa, April 18 and 19, 1945, endorse his candidacy for reelection to the Council and instruct the Delegates of the Iowa State Medical Society to the House of Delegates of the American Medical Association to assist in his reelection and cast their ballots for him."

Mr. Speaker, I move the adoption of that resolution.

... The motion was seconded by several delegates, . . . put to a vote and carried.

The Speaker: Gentlemen, we have a guest who would like to talk to you for a short time, Mr. Grant. I will ask Mary to introduce him.

Executive Secretary McCord: Mr. Willis Grant is the head of the Vocational-Rehabilitation Division for Iowa, and he would like to explain to you the program as it has so far been outlined for the state.

Mr. Willis W. Grant: I decided the best thing to do would be to make a short statement on the Iowa Physical Restoration Program and read it because I knew there wouldn't be much time for discussion. I am open for discussion but I don't expect the time.

I am happy to appear before you to explain this proposed entrance of the Rehabilitation Division of the Iowa State Board for Vocational Education into the field of Physical Restoration. I wish to assure you of my feeling of dependence on the medical authorities of the state for guidance in the administration of the technical phases of this addition to our program. Assurance will not be convincing to this organization unless you understand and accept the precautions that are being inaugurated to keep the entire program in harmony with medical ethics. When Public Law 113 was passed by the 78th Congress, some fears were expressed that it might turn out to be a form of state medicine. These fears are entirely groundless as I shall attempt to show you. In the attempt to avoid such a contingency the federal authorities, with the advice of medical and technical authorities representing every branch of the service to be covered, have set up a most comprehensive guide to the states in preparing their plan of operation. This Iowa plan must be submitted for federal acceptance preliminary to actual use of federal funds allocated to the state. The result has been a voluminous

document written in such detail that the State of Iowa cannot go far astray in its application. A complete copy of this section of the state plan is in the hands of your Executive Secretary.

Dr. E. M. MacEwen, Dean of the College of Medicine at the State University, has been very generous in advising us in the preparation of the plan. Several months ago he was appointed by Miss Jessie M. Parker, Executive Officer of our Board, as a special adviser in planning this new service. He has conferred with federal authorities and made several trips in the interest of this program.

As indicated in the plan, a Professional Advisory Committee has been appointed by the Board. Its personnel is as follows:

Ex officio, Dr. E. M. MacEwen, Special Adviser on professional standards, Dean, College of Medicine; Dr. John W. Dulin, Associate Professor of Surgery, College of Medicine; Dr. Walter L. Bierring, State Health Commissioner; Dr. Theodore J. Greteman, Assistant Director, State Services for Crippled Children; Dr. M. C. Hennessy, President, Iowa State Medical Society; Mr. Harold K. Wright, President, Iowa Hospital Association; Dr. W. M. Spear, Superintendent, State Tuberculosis Sanatorium; Dr. Hardy Pool, Chairman, Postwar Planning Committee, Iowa State Dental Society; Mrs. Vivian M. Walkup, President, Iowa State Association of Registered Nurses; Miss Mary M. Maxwell, The American Association of Medical Social Workers; Dr. Channing G. Smith, Medical Consultant, State Board of Social Welfare.

An attempt was made to keep the number on the Committee to a working minimum but each is representative of a group. When this Committee meets and organizes, it may decide to appoint subcommittees on special subjects and add to these subcommittees certain outstanding members of the professions represented. These subcommittees would then be in position to make their advice known promptly to the division and perhaps report later to the entire Committee. While it should be emphasized that this is a Professional Advisory Committee, I wish to assure you that the advice will be heeded as it applies to medical practices and ethics. This committee will not be responsible for administrative procedures. Each service as represented may become a part of a service to an individual. It has not seemed expedient to get the members together yet and no attempt will be made until we can place in their hands sufficient preliminary information on which they may base their decisions as to any questions that may be raised at the meeting. At the time of the organization meeting of this committee it is hoped that subcommittees will be appointed to advise on more detailed questions which may arise during the intervals between meetings.

A general advisory committee would not be sufficient to ensure ethical procedures, if we had not at the same time been able to secure the service of Dr. A. C. Page as a part-time medical consultant. His duty will be to keep us in harmony with medical ethics. In addition to this, however, he will be of great value in seeing that the funds at our disposal are used economically but consistent with the highest professional service obtainable. While the plan ascribes a number of routine procedures to the medical consultant, we are not disposed to burden him with these details until he has helped us get this new service in working order. I ask you to bear with us in our apparent slowness in getting under way. We cannot afford to be carried away by a sense of affluence nor to make expenditures which will afterwards prove to be ill-advised.

Among the things I should call to your attention is the fact that these funds cannot be used to establish hospitals or to employ doctors and technicians full-time to provide overall medical care. The services of physical restoration and of preparation for a job, such as training, will be purchased from existing facilities. We propose to purchase from hospitals of recognized standing services at a per diem rate, based on the average cost of the services rendered private patients. The services which the hospital does not furnish will be purchased directly from a physician or surgeon or technician who is fully qualified under standards established by the American Medical Association. Let me quote to you from the official plan a few paragraphs to illustrate what I mean. I said previously a copy of the entire Plan is in the hands of your Executive Secretary.

"V. Standards for Physicians and Other Professional Personnel providing services in Physical Restoration.

"A. Establishment of Standards for Physicians rendering services.

"1. The medical diagnosis and treatment of disabled

persons will be limited to physicians licensed to practice medicine and surgery and otherwise qualified by training and experience to perform the specific services required. Well organized clinics offering service of a high quality, particularly those established under the auspices of other government agencies and medical schools will be utilized as made available.

"2. The Rehabilitation Division will consider as specialty services, those specialties in medicine for which there have been established American Medical Specialty Boards. Other specialty services may from time to time be designated by the Professional Advisory Committee. Tentative decisions with respect to specialty services may be made by the Medical Consultant and must be considered at the next meeting of the Professional Advisory Committee meeting.

"3. Approval on an individual basis will be made by the Professional Advisory Committee in situations where there are shortages of certified specialists and of physicians meeting the training and experience requirements for Board examinations. This procedure will also be used for specialists in which there are no American Medical Specialty Boards. The specialists will be selected from physicians licensed to practice medicine and surgery in the state who have met the following qualifications:

"a. Graduation from a grade A medical school approved in accordance with standards generally accepted by the Council on Medical Education and Hospitals of the American Medical Association, and

"b. Completion of at least one year's internship in an approved hospital, and

"c. Completion of at least two years exclusively devoted to special training or experience in the diagnosis and treatment of the specialty."

This same plan carries equally meticulous statements in regard to the standards for the purchase of hospital facilities. The purchase of hospital care has been the subject for discussion with a committee of the Iowa Hospital Association, and the details seem to be fully acceptable by this committee, but a specific contract will be made with each hospital. For the present at least, our contracts will be made with hospitals with one hundred bed or more capacity. This seems advisable because of the added laboratory and other services that may be purchased at a satisfactory per diem rate.

Probably you will inquire if the state rehabilitation service with its added facilities will compete with free medical and hospital care already provided for paupers under Iowa law. Please remember that although federally aided, Vocational Rehabilitation is administered by the State of Iowa through its State Board for Vocational Education. This board is forbidden by law to provide services, provision for which has been made in other state legislation. Patients are committed to the University Hospital for treatment by the district judge upon submission of evidence by the county attorney that the person is financially unable to provide this treatment from his own resources. The county attorney usually secures his information from representatives of the county board of supervisors. If the patient needing surgical or medical care can be committed under this procedure with reasonable facility, it would not be legal for the Rehabilitation Division to take over this responsibility and pay for the services from state funds of federal origin. The Rehabilitation Division is not a pauperizing agency and a person need not be entirely without resources to be eligible for such service as it can provide. A person in need of service to provide him for self-supporting employment may have some resources, but not sufficient to cover the entire expense of the needed operation. Such a person probably could not be committed by the judge under the Iowa pauper law. Under rehabilitation procedure he would be expected to pay what he could without impoverishing himself or those on whom he is dependent. The entire cost would be guaranteed by the Division which would make up the difference between the total cost and the cost paid by the client. To avoid difficulties in collecting from the client it is proposed to make a contract with him which provides that he pay his portion before the service is actually started. The hospital charges would be at an established per diem rate based on their average costs for the year previous. The surgical and other technical service would be paid for at rates according to an accepted schedule. This schedule will probably become uniform among agencies who purchase hospital and medical care.

The Speaker: Gentlemen, you are free to ask Mr. Grant any questions you wish. This program is probably going to involve every member of the Society before it is completed.

Dr. Boice: There is one question I should like to ask. You spoke about doctors having a year's internship. That has been cut down to nine months. If you keep that, you will shut out all the young fellows graduating now.

Mr. Grant: I recognize that, but I believe there is enough leeway in the working of the plan to take care of that after we have presented it to the Advisory Committee.

Dr. J. C. Hill: We would like to know what the personnel of the patients is to be. Is it the Army group?

Mr. Grant: No. I have here a statement I might as well leave with your Secretary with regard to the difference between civilian rehabilitation and veteran rehabilitation. It is a complicated subject. But, in general, there are persons coming out of the armed forces who are not eligible under Veterans Administration. Such persons, if they are citizens of Iowa, are still eligible if they have a physical handicap.

Member: Is this a state or federal project?

Mr. Grant: It is a state project, federally aided. We have been in operation twenty-four years. We have developed from vocational rehabilitation, with our limitations, and now we have a new leeway on that. We have always been federally aided.

The Speaker: Any more questions?

Mr. Grant: I mentioned in my talk that we have a Professional Advisory Committee. I also mentioned that we haven't called them together yet, because we aren't trying to crowd the thing through. Eventually we will have an organization meeting, and then this committee can divide into special committees and can appoint new members to the special committees.

The Speaker: Any more questions? I will refer this report to the Committee on Medical Service and Public Relations. Thanks very much, Mr. Grant.

The Speaker: We have had what has been a cumbersome way of handling organizations of this type through the State Society. My personal conviction is that the State Medical Society is the hub, and all these various organizations which are functioning in the care of the sick or the wounded should be centralized through the State Society.

In our Medical Service and Public Relations Committee there will be one man, and assistants if he needs them, to study this report and see if there is a loophole in it that we don't like. There is a possibility in this setup that medical service coming in from the hospitals may not be satisfactory. This can be ironed out through this committee, and you will be protected.

Next is the Medical Service Plan which Dr. Martin Olsen will present to you.

Dr. M. I. Olsen: Mr. Speaker, Members of the House: The report has been published in the Handbook. I think there is no need of giving you what you already have in written form.

You might be interested in having the thing brought up to date. Through the efficient services of Dr. Billingsley, we gained enabling legislation by a unanimous vote in both houses. Articles of incorporation have been prepared; they have been filed with the Secretary of State, and we are now a going organization.

A board was named, pursuant to the instructions from this body November first last, on which there are thirteen physicians and five laymen at this time. I would like to emphasize that in the make-up of the board we have two actuaries, and they are there primarily to protect us against our own follies and to try to keep us out of trouble. I hope they will succeed in doing that.

We have taken the precaution to make our contract a monthly contract, so that we can modify it both in the benefits we offer and in the premium rates, without much loss in time, before much harm has been done.

The board met some two months ago and organized itself. We had a second board meeting yesterday, and spent the afternoon considering the details of the plan, inasmuch as the board itself decided that it must approve, and should approve, all of the details of the plan before they went into effect. There shouldn't be too much delay in getting under way.

To operate, we require 150 participating physicians. That is our next move. We are in the act of getting them. We have, I suppose, probably 30, 40 or 50 signed up. I don't think we are going to have too much difficulty. Linked to that, we are asking for a little donation of \$25, which we would like to have so that we may have a reserve fund with which to work, a buffer against the fluctuations that are certain to come from month to month and from season to season.

We expect to have two hospital service plans in the

state do the promoting, do the selling for us, and keep our office records; we are to maintain our own individual and distinct organization and are to handle our own claims.

I think of nothing further, Mr. Speaker, unless there should be some question. I hope that the State Society, through its officers, will go home and go into each county society and enroll the physicians. Without the active and complete support of the physicians, the plan will not succeed. It is necessary that we have a large proportion of the profession back of this thing.

I hope that you don't consider it too much from the personal angle. In getting a few enrolled last night, some of them put it this way: "Well, where do I come in on this? What do I gain from it? How would I be covered?"

Under the plan, and under any plan which we might devise at this time, it would be impossible to have one that would be of real, material benefit to every member of the profession.

The Speaker: Are there any questions you would like to ask Dr. Olsen? Now is the time to clear up any questions you may have.

Dr. L. F. Hill: How do you go about signing up? Have you sent out applications to individual physicians?

Dr. Olsen: We have already discussed that, in a measure, with President Hennessy and President-Elect Bernard. It is squarely in their laps to devise means of getting to the county societies. I think it is definitely a function of the State Society to enroll its members. This is a creation of the State Society, and it should feel the responsibility for putting it over; I am sure the officers do.

I might say we have taken up with the Commissioner the various details of the thing, and we have his approval of all phases of it, and I think we have his blessings. He is very anxious that we go through with this and do a good job of it. He is particularly anxious that, dollar-wise, we do a good job so that we do not run into a bad financial situation.

The Speaker: Anyone have any remarks relating to this thing?

President Hennessy: Dr. Olsen included me with Dr. Bernard. In discussing the presentation of this thing to the various county societies, it was our thought that we would endeavor to do this through the councilors, together with their deputy councilors. There has to be a process of education in each county. Incidentally, the funds have to come from the medical profession. The State Society Board of Trustees advanced \$5,000 to help pay for the initial cost, and it is estimated it will take about \$25,000 in order to get us going. Naturally, Dr. Olsen and his associates shouldn't have to dig up that \$25,000. That is up to the medical profession. We ask you delegates to go back and help stir up your individual counties, along with the deputy councilor and the councilor of your district. Possibly it may be necessary to hold some meetings and have some officers associated with the organization or the state office attend them, to outline the plan and also try to clear up the situation as much as possible.

I believe that idea meets with the approval of Dr. Bernard, who will be President later in the day.

I would like to move that this House of Delegates approve what has been done in the organization of the Iowa Medical Service plan to date. I feel it is only fair that we should give them approval of their actions because they have given considerable time and effort in this thing. I don't think there is any question but what it will be a going concern.

Mr. Speaker, I move that the House of Delegates approve all of the actions that have taken place to date.

The motion was seconded, put to a vote and carried.

Dr. J. A. Downing: Mr. Speaker, it's human nature to be interested in something in which you have some money. I am sure Dr. Olsen would be very glad to have a \$25 contribution from every one here. Then you will go home and sell it to the other fellows.

The Speaker: I would like to add to that, gentlemen. We are starting this plan (by "we", I mean the Society) and probably asking for less money from the membership than any other plan that has ever been started. Dr. Olsen, do you remember what they are asking in Indiana?

Dr. Olsen: They are asking for \$50,000, and they are expecting the profession to get behind that.

The Speaker: The point I want to make is this: This \$25 is a fund raised by the participating physicians of Iowa to give the insurance plan a nest egg. If this plan works as well as the Michigan Plan has, the money can be paid back. But please don't get the impression we are promising the \$25 is coming back.

Another thing, gentlemen. The hardest part of this whole proposition is selling it to the doctors. The demand for this is so great throughout the state that there will be little difficulty in selling it. If the doctors don't get behind their own insurance plan, then somebody else is going to, and it won't be the doctors.

Dr. J. C. Hill: The great question I hear is how they can get in on it.

The Speaker: The public demand is great. It is up to us to sign up as participating physicians and then go back home and sell it to the other doctors. I suggest you have district meetings.

We are very fortunate this morning. Every time a group of doctors gets together, it begins to knock the American Medical Association, saying it has done nothing; could do nothing. I have done my share. Some of the departments in the American Medical Association building in Chicago have become moth-eaten, some have died, and some are getting old. We in the North Central Conference stirred up something when we started this Council on Medical Service and Public Relations. We didn't get all we wanted the first year. We couldn't have a Washington office. We wanted somebody in Washington, or some office in Washington, that would represent the American Medical Association. It is the only organization, I suppose, in the United States that didn't have a real organization in Washington.

Last June that proposal was approved by the House of Delegates. At that time there was only one man considered, if he was available. He was a man who had done a bang-up job in the State of New York for some twenty years in handling public relations.

Finally, Dr. Joe Lawrence consented to open the office, and he consented last winter to come out from Washington and talk to us. He flew out here yesterday especially to tell you all about what is happening in the American Medical Association and to answer your questions. He is the kind of fellow to whom you can talk. He will answer your questions far better than I can.

I should have said earlier that the Executive Council asked for a report on this Council, and I thought the best report was to bring the Council to you rather than have him write a report.

It is with great pleasure I introduce Dr. Joe Lawrence who is director of the Washington office.

Dr. J. L. Lawrence: Mr. Chairman, Mr. Speaker or Mr. President-Elect, and Delegates to the Iowa State Medical Society: It is a great pleasure for me to be here today. I enjoyed the meeting last evening when I came in unannounced and nobody knew me or at least those who did see me didn't recognize me. I sat through that meeting, and then I had the pleasure this morning of listening to you here. I want to congratulate you on the sincerity with which you entered into your work, the suggestions you made for improvement or extension of the work. I read your committee reports this morning, and I found them exceedingly interesting and very thought-provoking.

Your Committee on Legislation has submitted a splendid report. You got what you wanted in the Legislature and you didn't get anything you didn't want. Sometimes the greatest achievement is to prevent getting what you don't want, rather than to get just what you do want.

But you are anxious to know something about the Washington office. Well, it is located at the present time in a very wretchedly little place, but that is not due to the American Medical Association's planning at all, or any interference from the American Medical Association. It was the very best space we could get in Washington, after having spent months in looking around. Washington is overcrowded, very definitely overcrowded with people.

There is a ceiling on apartment house rentals, which helps somewhat, but there is no ceiling on office space, so that, unless you are camped right on the steps when the other man gives up his lease or moves out, you do not have a chance. I had an experience of that kind.

First let me tell you how we got the office we do have. We got it because a doctor who occupied it as his private office gave up his Washington residence to take a position in Michigan. We took his office. That is the only chance we had. We have had two chances since then. The District Medical Society owns a building next to its present office, and it was willing to remodel that for us, but our Board of Trustees thought that, inasmuch as we are experimenting in this work, probably for the time we should have an office someplace apart from them.

Then the next opportunity was that a real estate agent had a residence, rather an attractive residence too, in a satisfactory part of town, turned over to him for rental. He decided to rent it as an office building and wanted to

rent it to one party who would divide it up or use it all himself. I heard about it and went after the real estate agent, and persuaded him to cut it up. I didn't persuade him, exactly. He didn't find somebody immediately who wanted to take the whole building off his hand. He was agreeable to giving me the first floor, at \$375.00 a month. However, by the time I had written to the members of my Council or the executive committee of that Council, he had rented the building. Consequently, we have to live in a very small and unaccommodating place. It is a good section of town. The management of the Doctors Building is happy to have us there and doesn't want us to leave. It will do all it can to give me a larger space, but, of course, the doctors who are occupying the space are not going to give it up.

The Council on Medical Service and Public Relations extends through me to you its best wishes. I know the members will be delighted to hear of your determination to have a similar Council in your Society, and also of the function, the duties and the powers that are delegated to that committee. We need just that sort of thing all over the United States. Every state society needs a coordinating committee for this one in Washington.

The program in Washington, I have been saying and now that we have had it in practice, I can say with more assurance, is a two-way program. First, we shall endeavor from Washington to keep the state societies and associations acquainted with what is happening in Washington. Primarily, during the time that Congress is in session, we will report the bills that are introduced which have a bearing on the practice of medicine or public health, and we will also report hearings that are being held, that is the time when they are to be held, and also the particular evidence that is submitted at that time.

The reports on the hearings held by the Pepper Committee last summer on wartime health and education are documents that every library in the United States should have on its shelves. Reports 5, 6 and 7 are documents of several hundred pages, but they are the statements made by leading men in the medical profession and in other walks of life.

As I sit here and listen to you talk, I know that you have been introverts, as too many physicians are. I do not use that word in any critical sense. I mean it as purely scientific. You take the people with whom you are working as a part of the program or as a part to share a responsibility for an active program. That is exactly what ought to be done, as I gather, from hearing other organizations talk of their activities.

There is an American Association of Public Relations Workers. You may not have heard of it, because it is rather new. They call their branch organizations Forges. There is a Forge in Washington. I have been a frequent visitor to their meetings. I intend to become a member. They have invited me to, and I shall because I am confident I am going to get an immense amount of benefit from that organization. They invite to their luncheons outstanding men or directors of public relations in other walks of life. For instance, one man who came to that meeting gave me more material than I actually need in developing this program of mine than I ever dreamed could exist. He is the director of public relations for the hotels of the United States.

The hotels have a public relations problem which was unknown to me until I talked to him. Their problems are very similar to ours. They have to watch continually for fear the Federal Government, through directives or through legislation, will interfere with their work. They are taxed exceedingly. They are inspected; their activities are itemized. The manner in which they conduct their tables or their food, the rooms, their ability to get help, all are subject to government regulation of one type or another. They have to fight for their existence, as this man pointed out.

He told us their problems, too, with the public. I use the hotels a great deal. I am on the road a lot, and I am annoyed and aggravated when I go into a hotel, walk up to register and the clerk says, "Have you a reservation?"

"No, I didn't have a chance to make one."

"We have no room."

It peeves me to think that a public convenience or institution, like a hotel, can't take care of the traveling public, but it can't, and I know it can't, even though I get peeved. I realize their ability is limited.

Well, as this man outlined things, I took them down in notes, and I could take those notes and put at the top, "Public Relations for Medical Societies", send it out, and I will wager that all of you would read it and feel that

somebody thought it out for the medical societies themselves.

He started out by saying that the people's cooperation must be secured for the effective conduct of a hotel. Many people are annoyed by a hotel that doesn't give them everything they want, and they even take away things from the hotel. Even blankets from beds are carried out by people who think hotels are a public convenience, just as they look upon the medical profession in many instances. They don't give us the consideration of being engaged in working for their good and for their service.

Another week a man representing the trolley companies in Washington spoke. They are criticized from one end of the city to another, in the newspapers as well as from the public standpoint, yet they are giving the best service they can.

A representative of the Army told how necessary it was for the Army to develop a public relations program that would elicit public interest in the invasion campaign. They anticipated a lot of opposition to a campaign that was sure to prove very severe, and they felt, in order not to have too great a reverberation, they would have to have a public relations program developed throughout the United States and with the soldiers abroad, too.

Let me show you what we are trying to do in Washington on that score. As I say, we are going to report everything we can in order to keep you informed of what is going on in Washington. In turn, we would like to have you write us and tell us what you are doing, or ask us questions about what you would like to know. We will do the best we can to answer them with our limited force. We have only two secretaries. The War Manpower Commission won't let us have more. We have one typewriter that we bought since we got there, and another one rented, an old rattletrap. The War Production Board won't let us have more.

Before I left Washington Monday I was engaged with committees. Tuesday morning I went down and saw as many of your Congressmen as I could, and I had a most pleasant morning. I was received cordially by all who were there. There were only three not in committee that morning.

I had a most interesting visit with Congressman Gwynne, with Congressman Talle and with Congressman Cunningham. They are devout friends of yours. You know that but I want to confirm it. It has a specific value. And I called upon Congressman Dingell. Congressman Dingell was a bit annoyed, it seemed to me. I told him I represented the Council on Medical Service and Public Relations of the American Medical Association. Congressman Dingell did look a bit sour and started out on the defense. I let him talk his defense out, and then I told him what I was trying to do in Washington. Almost immediately the atmosphere changed, and he came right around. He said, "Doctor, I want you to know that I am not for state medicine."

May I say right now, I haven't yet found a Congressman who is, and I will include Wagner in that. I haven't talked to Senator Wagner since I went to Washington this time, but there was a time, not too many years ago, when Senator Wagner and I appeared before the Constitutional Convention in Albany where they were remodeling the Constitution of New York State. He, at that time, had introduced a resolution asking that the constitution be so amended that the state might appropriate money for the conduct of a health insurance program, and I, representing the state society, appeared against that. We argued our two sides. After we had argued our sides before the committee, Senator Wagner said, "Well, gentlemen, I want you to know, before you go any farther, that I am not primarily interested in a health insurance program. I am primarily interested to this extent only, that if there is to be a social measure of that kind or of any other kind enacted by New York State or by Congress during the time that I am in public life, I want to have my name associated with it. I would like to be its sponsor. In other words, when I am gone, I want my monument to be my inscription on every piece of social legislation that originated or was enacted during my time in public life."

That is Senator Wagner's ambition, probably laudable. At any rate, he definitely said he was not specifically for health insurance. I would say Congressman Dingell said he is not either. He said he does not want the state to practice medicine. He does not want the relationship between doctor and patient, which he characterized as being spiritual, disturbed.

We may have differences of opinion as to how that thing shall be done but, gentlemen, as an advocate of

public relations, may I say to you that, as Krug, the Production Board man said to our group one day, "Public relations begins in your own heart. If you are inclined in your own heart to look upon the other man as sincere in his efforts, then you have made the first step in public relations."

That is an attitude I would like to cultivate. I believe we as doctors too frequently, and I am one of them, put ourselves in an attitude of defense. We feel things that happen, that are not exactly to our liking, were premeditated and definitely directed against us. This is not necessarily true. Grievances may arise because of some little thing, and policies may be framed because of them, but these can often be solved by talking things over together.

We physicians have a public health program, and we have the practice of medicine as our especial responsibility. We have been trained for it; we are specialists in that field. The state has contributed to our education. The state has licensed us. We are recognized as outstanding people in that field. And, by the way, we are the most highly educated people in any community. There is no group, lawyers, ministers or any others who expose themselves to educational influences as long as the doctors. We get so busy with our practice and so worn out, so nerve-wracked because of the individual cases we have to care for, that we frequently forget to orient ourselves in our community, but the people still maintain that we are the leaders in this particular field. Let us act upon that assumption.

The provision of medical service to a particular community is not the sole responsibility of the doctors, may I say. We are first, of course, trained persons who can diagnose and prescribe treatment. I do not believe that the doctors of the United States, as a whole, are being criticized by anybody, even by these advocates of state medicine, as being unable to do that.

Next to be considered is making that service available, and then making it possible for the individuals to pay for that service. These are not necessarily responsibilities of the doctors alone. What about your elected officials of the community? They have definite obligations with regard to other activities in the community. Why shouldn't they have them for medical care as well?

About a year ago I was invited to talk to a group at Columbia University. I said, "What is the name of the group I am to talk to?"

They said, "We are the Association of Alumnae Economists."

They wanted to know about health insurance. I turned it right on them. I said, "You have no criticism of the kind of medicine that is practiced in the United States today, have you?"

"No."

"It is just a matter of your wanting to know how it can be made more available. Isn't that an economic problem? You ought to solve that. We doctors will take care of the medicine, and you take care of how it is to be paid for. We want to be paid, of course, just the same as any other public servant."

They smiled and agreed. Of course, what happens, and everyone takes advantage of it, is that if a man can't pay for his medical bill, then the doctor does it for nothing. That is not fair, absolutely not fair, either to the doctor or to the man, and it should not be that way. Let us call in the public officials, the leaders of our community, the outstanding leaders of all the activities in the community, not to shift our responsibilities, but to discuss with them a community problem. As we approach them on that basis, we can expect that they will cooperate with us. Even the labor unions, the CIO organization, and the A. F. of L., are very ready to sit down and assume a share of responsibility.

You will be interested in this. Back in January Dr. West notified Dr. Bauer that there was to be a meeting in Washington, called by the CIO, and he asked him if he would go as a delegate and take me. Dr. Bauer and I went to this meeting. It was opened by the national secretary of the CIO, Mr. Carey, and it was addressed immediately by the president, Mr. Murray. The meeting consisted of about 150 white-collar people, mostly nurses, social workers, school teachers, office workers. We looked the crowd over, and we couldn't understand what the point was, whether it was to organize these people or what.

We sat through the forenoon and didn't get much out of it. Bauer said, "I have an engagement I can't shirk this afternoon. I have to get back. Suppose you go on and attend and see what comes of this."

Before they assembled in the afternoon, I got Mr. Carey.

I said, "I would like you to tell me what this is all about. I have been here, and I didn't get anything out of this forenoon."

He said, "Doctor, I am delighted. Come over and sit down and let me tell you. We are concerned about the white-collar people. They are getting fewer and fewer. Young people are leaving school and going into industry where they can be assured a certain definite income with pension and its other advantages which the white-collar people don't generally have."

I said, "You want to organize them?"

"No, sir, we don't want to organize. That is the last thing we want to do. We want to assure ourselves we will have enough of them, particularly school teachers. Do you know we are getting low on school teachers, and not getting the best material, because those people can get other jobs that pay better. What can we ever do without school teachers, or nurses, and you doctors, too. But you are not the first ones. You are still able to help yourselves."

These are community problems, gentlemen. This Council of yours, this Council on Medical Service and Public Relations, has an enormous field in front of it. I visualize the Washington office as a permanent affair, and sooner or later—and sooner rather than later—it will be one of the most important offices the medical profession has. Washington is rapidly becoming the headquarters, city, as Dr. Bernard said, for organizations throughout the United States who are interested in legislation or in public relations.

In the Social Work Year Book that has just come out, there are 80 government public relations organizations, and 70 of those, naturally, have their headquarters in Washington. There are 402 others listed in that book, and of those 402, 13½ per cent—they are probably the largest ones—have headquarters in Washington.

Industry used to have its headquarters in New York. They still maintain it but they also have a headquarters in Washington where they can keep in touch with what Congress and the various commissions and departments do.

The Speaker: With your permission, Dr. Lawrence, we would like to recess for lunch and have you finish this afternoon. We want to get all the information we can. We will declare the meeting recessed until two-fifteen.

... The meeting recessed at twelve-forty o'clock ...

Thursday Afternoon, April 19, 1945

The meeting convened at two-twenty o'clock, Dr. Bernard presiding.

The Speaker: We will have the roll call.

Roll call showed the following persons present:

First District: O. H. Banton of Charles City, F. A. Hennessy of Calmar, and P. E. Gardner of New Hampton.

Second District: L. R. Woodward of Mason City, C. A. Newman of Bode, and R. M. Wallace of Algona.

Third District: W. R. Brock of Sheldon, M. T. Morton of Estherville, and T. L. Ward of Arnolds Park.

Fourth District: R. N. Larimer of Sioux City, C. F. Obermann of Cherokee, and J. R. Dewey of Schaller.

Fifth District: L. F. Hill of Des Moines, E. M. Kersten of Fort Dodge, and E. B. Bush of Ames.

Sixth District: E. E. Magee of Waterloo and J. W. Billingsley of Newton.

Seventh District: J. W. Dulin of Iowa City and T. F. Suchomel of Cedar Rapids.

Eighth District: L. A. Coffin of Farmington and L. C. Howe of Muscatine.

Ninth District: C. A. Henry of Farson and D. L. Grothaus of Delta.

Tenth District: A. W. Brunk of Prescott, I. K. Sayre of St. Charles, and J. H. Gasson of Bedford.

Eleventh District: Kenneth Murchison of Sidney and G. V. Caughlan of Council Bluffs.

Officers: M. C. Hennessy, R. D. Bernard, F. L. Knowles, R. L. Parker, J. A. Downing, L. L. Carr, C. H. Cretzmeyer, J. B. Knipe, J. E. Reeder, E. F. Beeh, J. C. Hill, H. A. Housholder, C. A. Boice, R. C. Gutch, J. G. Macrae, O. J. Fay, and W. A. Sternberg. Also present were the delegates to the American Medical Association, T. F. Thornton and T. A. Burcham.

The Speaker: Forty-five voting members. This is a recessed meeting, consequently, no minutes for this morning.

Report of the Nominating Committee.

Dr. J. W. Dulin: Mr. Speaker, the Nominating Committee met last evening. Dr. Brock was appointed as chairman and I was appointed as Secretary. The following nominations were made:

For President-Elect: Dr. Robert L. Parker, Des Moines, and Dr. Harold A. Spilman, Ottumwa.

For First Vice President: George H. Scanlon, Iowa City.

For Second Vice President: C. R. Harken, Osceola.

For Secretary: John C. Parsons, Des Moines (three years).

For Treasurer: James A. Downing, Des Moines (three years).

For Trustee: John I. Marker, Davenport (three years).

For Councilors:

Fourth District: Robert N. Larimer, Sioux City (five years).

Ninth District: Roy C. Gutch, Chariton (five years).

For Delegate to American Medical Association: James E. Reeder, Sioux City (two years).

For Alternate Delegate to American Medical Association: G. V. Caughlan, Council Bluffs (two years).

The Speaker: You have heard the report of the Nominating Committee. What is your pleasure?

Dr. Downing: I move it be accepted and the Society proceed to ballot.

The motion was seconded, put to a vote and carried.

The Speaker: Are there any nominations from the floor? If there are no nominations from the floor, will you spread the ballots, Mr. Secretary?

Dr. C. A. Henry: Mr. Speaker, I am in receipt of a communication from Dr. Harold A. Spilman who authorizes me to withdraw his name for candidate as President and to offer a motion, in his behalf, that Dr. Parker be elected by unanimous vote of the Society.

Dr. Boice: I second the motion.

The Speaker: You have heard the motion, and it has been seconded. Ready for the question? All in favor say "aye"; contrary "no". *The motion is carried, and Dr. Parker is your choice for President-Elect. Congratulations!*

President-Elect Parker: Mr. Speaker, Members of the House: For fifteen years I have tried to give an account of my stewardship in each report of the Secretary. Each year I have become more proud of that report. As you know, in the early days we had very few counties in the state that had 100 per cent membership. I am proud to report we now have 52 out of 97 counties.

I appreciate this honor more than I can tell. Thank you.

Dr. Boice: Mr. Speaker, may I move that the Secretary be instructed to cast the unanimous ballot for the balance of the nominations as recommended by this committee.

The motion was seconded, put to a vote and carried.

The secretary then declared the vote of the House so cast.

The Speaker: I am quite sure, gentlemen, we are losing a very good Secretary but I know he will make a very good President.

Any reports? Any more reference committees? Life Membership applicants?

Executive Secretary McCord: To save time, the names of those who are applying under fifty years' practice and thirty years' membership have been listed all together, so that you don't have to vote on them individually.

All of the following now have practiced medicine fifty years and have been members of the Iowa State Medical Society for thirty years, and so they are eligible, under our rules, for Life Membership:

L. C. Kern of Waverly
E. D. Beatty of Mallard
Herbert M. Huston of Ruthven
J. W. Woodbridge of Emmetsburg
W. S. Reiley of Red Oak
W. S. Greenleaf of Atlantic
James Bisgard of Harlan
Mary I. Tinley of Council Bluffs
G. C. Giles of Oakland
Homer L. Spaulding of Ankeny
W. L. Whitmire of Sumner
R. E. Robinson of Waverly

The Speaker: Has any delegate any other name to suggest before we vote upon these? If not, I will entertain a motion.

President-Elect Parker: I move, Mr. Speaker, that they be made Life Members.

Dr. Gardner: I second it.

The Speaker: Ready for that motion? Those in favor say "aye"; contrary the same. *The motion is carried.*

Executive Secretary McCord: The following names are presented as applicants for Life Membership because of physical disability:

J. E. Marek of Mason City
Howard Risk of Oelwein

President-Elect Parker: I move, Mr. Speaker, they be made Life Members.

The motion was seconded, put to a vote and carried.

The Speaker: We have one report that should have been given this morning, and that is from Procurement and Assignment. Are you ready, Dr. Suchomel?

Dr. Suchomel: I have no report to make.

The Speaker: Any remarks?

Dr. Suchomel: I'm afraid they won't stand printing.

The only report or remark that I have to make about Procurement and Assignment is that we have now ceased recruiting doctors for the Army. The Navy still needs doctors, and so does the Veterans Administration. Consequently, we are still certifying as available a few doctors in the state who, by virtue of being 4-F's in the draft, are still considered available for the Veterans Administration, thereby releasing some doctors for active duty.

We are also concerned with the 9-9-9 program which, as you know, is the intern-resident program. Some feeling exists in the hospitals of the state that, when they receive a letter from our office stating that their quota is so much or so many interns or so many residents, of whom a certain percentage may be deferred, those quotas are set by us. That is not true. Those quotas are all set in Dr. Barton's office in Washington. If there is any hospital that feels it should have its quota changed, either as to actual numbers, or if it feels it should have more interns and less residents, it is at liberty to make application to the Central Committee.

We are now having considerable work with some doctors who have been in service two years or longer, apparently getting tired of it and seeking intercession by the home physicians or some chamber of commerce or prominent organizations, or even Congressmen or state legislators, by stating that that particular town is badly in need of their services. It is up to us to make recommendations as to whether or not this individual should be separated from the service. The situation in every county from which we receive such a request is reviewed and when it seems to be a borderline case, we get the opinion of our contact in that county, who is always a doctor. It is utterly impossible to get separation from service for a doctor who is overseas or at sea. That is out of the question. So far our score on obtaining releases even of doctors who are in the States has been an absolute zero. We have had two or three instances where the appeals committee of the governing board has recommended such separation but was turned down. However, we feel that after the middle of July there will be some relaxation, and there may be an increase in the number of men who will be separated from the service in order to return to their communities.

The overall situation in Iowa, gentlemen, is not at all bad. We have no really critical area. We have two or three localities in Iowa that could stand the services of another physician and take the load off the doctors that are there, to a certain extent, but there are no what you would call real, bona fide, critical areas in Iowa.

We have in our office now a representative from Dr. Barton's office making a recheck. She surprised me very much when she said the State of Indiana has fifteen critical areas. Now, some of these so-called critical areas are not due to the fact that doctors were taken into service or there were a few deaths in that locality, but are due to the fact that men are moving out. We have no control over that. All we can do is to say that we do not approve of the action, and hope they will reconsider. I am happy to say that on two or three occasions the men have reconsidered and stayed.

The osteopaths are taking advantage of the situation and are jumping to places and saying that they have been sent there by Procurement and Assignment, but they leave off "for osteopaths." Naturally, when they say "Procurement and Assignment," we get the blame.

Whenever we get an inquiry from Washington as to the essentiality of an osteopath, we fire it right back at them and say we have nothing to do with it; we are not concerned with osteopaths. We recommend reference to the osteopathic Procurement and Assignment Service, and that is the last we usually hear of it.

I would make one appeal; I have made it at every session and I will make it as long as we have this work to do, and that is, if you receive a letter from our office asking for information about a doctor or situation, and if you are asked to submit reports on changes either in your district or your county, such as deaths, retirements, new arrivals, and those who have left, please send them to us as soon as possible. Please at least answer our letters.

One doctor said to me at the special session in November, "I don't know whether I will answer your letter or not. It is too much work."

I said, "Doctor, I don't care, but if you think it is too much work, you multiply that by ninety-nine and you will then have a fair picture of my job."

We are under constant pressure either from the Chicago office or from the Washington office for this information. They want it, and they keep after us until we get it. Sometimes it takes quite a while. We do not have the time or the funds available to visit every county and make a personal survey. We depend upon our contact men to give us the information, and I am happy to say they are doing a swell job.

I also want to take this opportunity to thank the girls in the Central Office, and Bob Parker, for the excellent cooperation they have given us in all the four and one-half years we have been working on the Procurement and Assignment Service. Thank you.

Dr. Caughlan: Mr. Speaker, Members of the House of Delegates: As I announced this morning, I planned to introduce an amendment to Article V, Section 1 of the Constitution of the Iowa State Medical Society. This is purely the introduction of an amendment, and it must lay over for a year. It must be published in the JOURNAL and then be voted on next year. The amendment is this: That Section 1 of Article V be amended to read as follows:

"The House of Delegates shall be the legislative and business body of the Society, and shall consist of delegates elected by the competent county societies. They shall have the sole voting power at meetings, except that the President shall cast the deciding vote in the event of a tie vote."

In going over this Constitution, I came across this paragraph on amendments. It is Article XII, and I think it is interesting; it was to me, and I think it will be to you.

"The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates registered at the Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session and shall have been published in the JOURNAL of this Society."

I took this thing up with some of the people here, and they all agree with me that, when this amendment is voted upon next year, it must be voted upon by the delegates only. I present this amendment for adoption.

The Speaker: Is there any other unfinished business?

Dr. Thornton: Read that last again.

Dr. Caughlan: "The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates registered at the Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session and shall have been published in the JOURNAL of this Society."

That, I assume, means only the delegates can vote next year, not the ex officio members of the House of Delegates, and those with whom I conferred agreed with that. I am just calling it to the attention of the House of Delegates now.

The Speaker: You understand, gentlemen, that is an opinion and not a ruling. Undoubtedly, before the next meeting this particular paragraph will be investigated by a parliamentarian, so that we can proceed with a little better knowledge of what that particular paragraph means. We have apparently been going wrong a good many years.

If there is no more new business, we will ask Dr. Lawrence to answer questions.

Dr. Lawrence: I will be glad to answer any questions you might want to ask, if I can. The spirit is willing.

Dr. L. F. Hill: Finish up what you were telling us this morning.

Dr. Lawrence: I forgot where I stopped. Oh, yes, the sixty-four-dollar question which is always asked me after a conversation with almost anybody, whether it is a Congressman or just a layman who is interested in what we are doing, "Well, what do the doctors propose to do?"

I talked with the present President one day when he was still Senator Truman. He said he didn't believe the government should engage in the practice of medicine, and he certainly didn't believe that the relationship between the doctor and the patient should be disturbed. He believed, however, that hospitals should be open hospitals. His argument was that most hospitals are constructed by public subscription, and maintained by public subscription, and, therefore, he couldn't see how any group of doctors organized as a staff could have the legal right to close that hospital to any other doctor.

I think he would listen to an argument against that; he didn't want to at the time, but he admitted that somebody would have to be responsible for the character of medicine that is practiced, and he didn't know of any-

body who could do it better than the doctors.

Then, what is the doctor's program for taking care of people living beyond the reaches of the doctors who are practicing at the present time? Sam Rayburn told me about a friend in his district who lives thirty miles from the nearest town where there are physicians. He says it is their custom to charge so much a mile after a certain number of miles. He said, "My friend would have to pay \$30 a visit for the doctor. He couldn't have but two or three visits a year without going into debt. What is he going to do?"

And Senator Truman turned it over to me and said, "What do you think? What do the medical men think he is going to do?"

That is the sixty-four-dollar question. What are we going to do? I think we should have some constructive program but, on the other hand, we physicians are not and shouldn't permit ourselves to be entirely responsible for the economics of this matter. We should bring in others who are familiar with solving economic problems and upon whom the burden of the community economic conditions rests. Even that won't entirely satisfy the public, and I don't think it should us, either.

I think we should have some constructive suggestions about defects or inefficiencies of which we know. They do exist and we can't eliminate them by closing our eyes to them.

It is a bad philosophy, gentlemen, for us to say we will care for people for nothing if they can't pay. I don't think I am radical. There is no reason why we as doctors should be asked to finance our own activities; nobody else does it, and I don't believe the public really demands it of us. We prefer to do it in order to keep ourselves free from something, I don't know what, but I think we can meet that something in a different sort of way. Our voluntary insurance is doing it right now. Let's think out a method of making voluntary insurance cover everything. When I talk with a man about these problems, I don't feel that, because I talked to him, I have to follow what he says or that his idea is going to be any better than mine. But I do like to have him state his idea, and I state mine. Then we talk it over together.

Congressman Moore said to me, "If the medical profession doesn't have a bill presented to Congress, and if other groups bring out other bills, my only choice then will be to vote 'no' or to vote with their bills. Even if I don't like a bill, I don't like just to vote 'no'. I prefer a choice so that I can say 'I don't like your bill; I like this better.'"

Dr. L. F. Hill: What do you think the chances are that these voluntary plans being developed around the United States, will be able to stave off what apparently is a moving trend for various other governmental schemes to be introduced into legislatures, not only national but in some of the states?

Dr. Lawrence: Dr. Hill, may I put that question in other phraseology. Instead of considering how effectively these voluntary plans will stave off the legislation which is in the offing, let's put it this way: How nearly do you think the voluntary plans are going to meet the need? We are in a constructive mood now.

They are going a long way to meet it but I don't think 100 per cent, as they are now constructed. I think there are certain disappointments that are bound to come up, and rather early, too.

In the first place, we haven't yet an actuarial base on which we can give an all-over coverage. When we can't sell an all-over coverage, the people who buy the policies are going to find they are not covered for the things they want covered, and then they are going to feel they are being gypped in one way or another.

I notice in your plan you have a three-day self-insurance. I think you will modify that. It is a splendid idea to start that way, but you want a preventive program in your health insurance. With three days not covered the patient is going to wait until he is definitely ill before he comes to you, because he just doesn't want to pay for those three days if he can avoid it. I know some schemes are abandoning self-insurance. After all, they didn't find it was such an obstruction, people only called for doctors when they needed them, and they got an opportunity to see them that much earlier and start treatment much earlier and much more effectively.

I think all the way through, even in our speech with the public, we should assume the position that we are not opposing anything the people are trying to do; on the contrary, we are trying to help, and we are trying to help them do it from this point of view.

Dr. T. L. Ward: As you look at the various plans, how well do you think they will stand up?

Dr. Lawrence: These limited programs grow, and they accumulate a surplus very rapidly. Michigan is accumulating surplus very rapidly now and is planning to increase the coverage. I think complete coverage is what we are going to come to, when we know how to do it, but, you see, Michigan went bankrupt before it was found, and some other groups have done the same thing before they knew what a fair basis was. We are trying to keep the cost low. That, too, is not illogical. Look at the amount of money people are spending annually for vitamins. If they put that into insurance they could pay for all the insurance and have a surplus, but they haven't been sold on the idea yet. The vitamin people go to them constructively, "Keep your youth, eat vitamins." We don't; we go to them on the defensive. Instead of being good salesmen, public relations people, with a splendid thing to sell, we go out with a chip on our shoulder, trying to defend what we are doing, and we leave the wrong impression with the public.

Dr. Reeder: What criticism have you heard in Washington by the proponents of the federal setup against the prepayment plans?

Dr. Lawrence: Nothing except that they don't reach into the rural districts and don't reach everywhere. Of course, the Wagner Bill didn't reach them either, and so that criticism fails on that score. I think everybody can be reached after we know what should be charged and what actuarial basis is satisfactory.

Dr. Reeder: What do you know about the new bill by Wagner?

Dr. Lawrence: That is purely a guess. I talked to Wagner's office, and they told me he is prepared to make some changes in his bill. I believe the Polk County JOURNAL published the statement that Wagner's office gave two hints; one was they were going to break down, centralize the control; not placing it with the Surgeon General but, rather with states or communities. That is what his secretary told me. The second thing, he is going to include dentistry and nursing, and I think there was one other thing they volunteered, but there is no assurance these statements are absolutely true. We won't know what the bill will be until it is printed. It may not be printed as soon as we think. He was waiting for the President to send up a message on Social Security, and then his bill was rather to visualize or to give opportunity for realizing the President's recommendation.

Dingell, on the other hand, is taking the other attack. He threw his bill in so that they would have a reason to hold a hearing. He proposes to have a hearing. On the basis of what is said at that hearing, he proposes to make modifications in his bill. Whether he will get a hearing or not, we don't know.

Dr. L. F. Hill: What is the status of the Hill-Burton hospital bill?

Dr. Lawrence: That bill has passed the Senate; at any rate, it was reported out by the Senate committee. It is in the House. It is altogether certain that certain amendments must be made in the bill as originally drafted. They are not amendments, however, that will injure the bill, and they will increase its usefulness. The sympathy is with the bill. I talked with Senator Hill one day. His father is a doctor, and he has a brother or two who are doctors, and a brother-in-law. He knows what it is all about; he isn't in the dark with regard to it. The bill is intended to bring medical care to the people in rural districts.

I asked him, "Do you realize that possibly constructing a hospital out in a rural district, where there are no doctors, might not just in itself answer the problem? In the next place, you have to have a staff, and it has to be a capable staff. How are you going to get a capable staff to live out in the rural district? They have to have a certain amount of work, which presumes the people are going to flock in right away with a lot of cases. The rural people, many times, feel they can get along without a hospital."

He said, "Doctor, you're right. That is one of the conditions we have to consider. My father used to say, quoting Paderewski, if he didn't practice for one day, he knew it; if he didn't practice for a week, his audience knew it. My father said the same thing was true with surgery. I know you can't put a hospital out in a rural district and expect a man to do good surgery if he has only one or two cases a week."

I said, "It is also true of laboratory work. Laboratory technicians must have continuous work."

He said, "That is another one of the problems we have to solve, too, as we go along."

They realize the situation, and they are going to work toward it. It isn't easy. What they want to do is to get

medical care out where it isn't, not to increase what now exists.

May I say again, I thoroughly appreciate your kindness in inviting me here, and I enjoyed every minute of it. I wish that I could do this with every state. I probably wouldn't have as good a time but it would help me a lot.

I trust, as questions do arise in your mind, you will write to me in Washington and give me a chance to try to answer them there. Thank you all.

The Speaker: Any other new business?

Dr. Bierring: Mr. Speaker, may I have the floor a moment. There will be a vacancy on the State Board of Medical Examiners July first, with the expiration of the three-year term of Dr. Morgan of Clinton, Iowa. The law regarding appointments is that the Governor shall make these appointments from a list furnished by the state society of the particular profession concerned. Therefore, it would be the duty of this House of Delegates to send a list of physicians from which the Governor may choose.

I wish to say that the old wording of the law said that no more than two of the three members of the Board should be from the same type of medical practice. That was in the days when we had eclectic physicians and homeopathic physicians.

The question now arises, is the practice of homeopathic medicine really a separate form of medical practice? Most of the graduates of the one school of homeopathic medicine, the Hahnemann Medical College in Philadelphia, belong, as a rule, to regular medical societies. They pass the various boards of examination without regard to the homeopathic system of practice. They pass the specialty boards. They are admitted into the various military forces. The question is whether a ruling from the Attorney General might not state that the old provision doesn't hold good, that it is not really another kind of medical practice, and whether the submission of names from non-homeopathic graduates might not be received by the Governor.

The Speaker: I just wonder if anyone in the group dissents with Dr. Bierring's opinion. It might give the individuals who will be responsible for naming these men a little more leeway with the Governor, if the State Medical Society were back of them. Is it your opinion that we should unofficially, at least, go on record as feeling that this list should be made up of our group rather than the homeopaths.

Dr. Bierring: I think you should regard this as a State Medical Society that includes homeopaths and eclectics and send a list in to the Governor. The other two members are Dr. A. A. Johnson of Council Bluffs and Dr. A. D. Woods of State Center. The former is the chairman; Dr. Woods is the secretary of the Board. So, I presume geographically the Governor might be inclined toward the eastern or southern half of the state.

The Speaker: Do I hear any dissenting remarks concerning this? Your silence will be consent to the opinion of Dr. Bierring.

Dr. Bierring: I should think the Council or the Executive Council or the Nominating Committee might suggest names.

The Speaker: If that is the case, we will leave it that way.

... President Hennessy assumed the chair ...

President Hennessy: Members of the House of Delegates: Dr. Bernard, you are about to cease to be the Speaker. I want to assure you, Dr. Bernard, that if the membership, the House of Delegates and the officers will support you as they have me, you will have a very successful year, and the Society and yourself will both profit by it.

As a token of your new office as President of the Iowa State Medical Society, I want to present you with this gavel. May you use it wisely and well.

... President Bernard assumed the chair ...

President Bernard: Thank you. I feel constrained to return the compliment to Dr. Hennessy. It has been a very happy year as President-Elect. I think Dr. Hennessy will agree that we teamed up 100 per cent, both horses have pulled together, with the result that I think Dr. Hennessy's year will be recorded as one of the most successful years the state has ever had. I wish to thank you, Dr. Hennessy, for your courtesies during the past year.

The next is the announcement of committees.

STANDING COMMITTEES OF THE HOUSE OF
DELEGATES

CONSTITUTION AND BY-LAWS

J. H. Henkin.....	Sioux City
P. O. Nelson.....	Emmetsburg
T. L. Ward.....	Arnolds Park

FINANCE

E. C. McClure.....	Bussey
A. S. Bowers.....	Orient
H. M. Pahlas.....	Dubuque

LEGISLATION

J. W. Billingsley.....	Newton
L. A. Coffin.....	Farmington
A. L. Jenks, Jr.....	Des Moines
R. D. Bernard.....	Clarion
J. C. Parsons.....	Des Moines

MEDICAL SERVICE AND PUBLIC RELATIONS

Fred Sternagel.....	West Des Moines
M. I. Olsen.....	Des Moines
L. R. Woodward.....	Mason City
M. C. Hennessy.....	Council Bluffs
C. T. Maxwell.....	Sioux City
R. C. Gutch.....	Chariton
R. D. Bernard.....	Clarion

MEDICAL EDUCATION AND HOSPITALS

M. E. Barnes.....	Iowa City
A. A. Johnson.....	Council Bluffs
I. N. Crow.....	Fairfield

MEDICOLEGAL

G. C. Albright, reappointed.....	Iowa City
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SPECIAL COMMITTEES OF THE HOUSE OF
DELEGATES

BALDRIDGE-BEYE MEMORIAL

F. A. Hennessy, Chairman.....	Calmar
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CANCER

J. C. Hill.....	Newton
H. W. Morgan.....	Mason City
E. G. Zimmerer.....	Des Moines
A. W. Erskine.....	Cedar Rapids
A. C. Starry.....	Sioux City

FRACTURE

A. F. O'Donoghue.....	Sioux City
W. G. Bessmer.....	Davenport
F. L. Knowles.....	Fort Dodge
L. M. Overton.....	Des Moines
F. R. Peterson.....	Iowa City

HISTORICAL

W. L. Bierring.....	Des Moines
H. G. Langworthy.....	Dubuque
C. A. Henry.....	Farson
C. L. Jones.....	Gilmore City
L. C. Kern.....	Waverly

INDUSTRIAL HEALTH

J. E. Reeder.....	Sioux City
J. K. von Lackum.....	Cedar Rapids
G. M. Crabb.....	Mason City

MATERNAL AND CHILD HEALTH

H. E. Farnsworth.....	Storm Lake
R. H. McBride.....	Sioux City
L. F. Hill.....	Des Moines
E. D. Plass.....	Iowa City
C. P. Phillips.....	Muscatine
H. A. Weis.....	Davenport
J. F. Gerken.....	Waterloo

POSTWAR PLANNING

G. F. Harkness.....	Davenport
H. E. Stroy.....	Osceola
M. E. Barnes.....	Iowa City
E. M. MacEwen.....	Iowa City
B. F. Wolverton.....	Cedar Rapids

SCIENTIFIC EXHIBITS

R. F. Birge.....	Des Moines
W. H. Longworth.....	Boone
A. D. Woods.....	State Center

SPEAKERS BUREAU

G. E. Mountain.....	Des Moines
A. A. Schultz.....	Fort Dodge
R. N. Larimer.....	Sioux City
James Dunn.....	Davenport
O. F. Parish.....	Grinnell

TUBERCULOSIS

J. C. Painter.....	Dubuque
J. C. Parsons.....	Des Moines
R. J. Harrington.....	Sioux City
F. E. Sampson.....	Creston
R. E. Smiley.....	Mason City

CHAIRMAN, MEDICAL SECTION

Willis M. Fowler.....	Iowa City
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CHAIRMAN, SURGICAL SECTION

Lewis M. Overton.....	Des Moines
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CHAIRMAN, EYE, EAR, NOSE AND THROAT SECTION

Henry A. Bender.....	Waterloo
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President Bernard: Is there any further business?
President-Elect Parker: I move, Mr. President, that the committees as named by the incoming President be approved by this House.

The motion was seconded, put to a vote and passed.

President Bernard: The committees are approved.
Before we close, I should like to thank you, gentlemen, for your tolerance. You have been very patient. If there is no other business, the meeting stands adjourned.

... The meeting adjourned at three-fifteen o'clock ...

MEMBERSHIP ROSTER
of the
IOWA STATE MEDICAL
SOCIETY
1945



Members in Good Standing as of
June 23, 1945

- *Aagesen, Carl A., Dows
 *Abbott, Walter D., Des Moines
 Abegg, Henry H., Dougherty
 Aeher, Albert E., Fort Dodge
 Aeker, Wesley H., Waterloo
 Ackerman, Emma M., Sioux City
 Adair, Gael M., Anita
 *Adams, Carroll O., Mason City
 Adams, Ernest M., Central City (L.M.)
 Adams, Leon P., Newton
 Adams, Reta, Santa Monica, California
 Adrian, Frank, Sigourney
 *Ady, Albert E., West Liberty
 Acilts, Eerko S., Sibley
 Agnew, Fred F., Independence
 *Agnew, James W., Iowa City
 Ahrens, Lewis H., Fontanelle
 Aid, Francis H., Burlington
 *Albert, Seymour M., Iowa City
 Albright, George C., Iowa City
 Aleock, Nathaniel G., Iowa City
 Aleorn, William L., Washington
 Alden, Osear, Red Oak
 Aldrich, J. Frank, Shenandoah
 Aleshire, Irma, Cedar Rapids
 *Allen, James H., Iowa City
 Alliband, George A., Atlantic
 Allison, Arthur L., Rodney
 Allison, Monroe P., Northwood
 *Almer, Lennart E., Moorhead
 *Almquist, Reuben E., Albert City
 Altman, Samuel J., Marshalltown
 Ambery, Sebastian, Keokuk
 Amdor, William F., Glendale, California (L.M.)
 *Amesbury, Harry A., Clinton
 Amiek, Louis B., Sac City
 Amle, Paul J., Waverly
 *Andersen, Bruce V., Greene
 Andersen, Holger M., Strawberry Point
 *Anderson, Edward N., Iowa City
 Anderson, Edward W., Des Moines
 Anderson, Glenn J., Winterset
 Anderson, Harold N., Des Moines
 Anderson, Harry N., Woodbine
 Anderson, Herbert W., Council Bluffs
 Anderson, James D., West Des Moines
 *Anderson, N. Boyd, Des Moines
 *Anderson, Robert E., Chariton
 *Anderson, Stanley N., Onawa
 *Andre, Gaylord R., Lisbon
 Andrew, Earl V., Maquoketa
 *Angell, Charles A., Des Moines
 *Anneberg, Adrian R., Carroll
 Anneberg, August R., Carroll
 Anneberg, Paul D., Carroll
 *Anrode, Walter A., Carroll
 Anrode, Ralph A., Davenport
 Anspaeh, Ellen E. F., Mitchellville
 Anspaeh, Royal G., Colfax
 *Anspaeh, Royal S., Mitchellville
 Antes, Earl H., Evansville, Indiana
 Anthony, Ernest J., Black Mountain, North Carolina
 Anthony, Walter E., Ottumwa
 Arent, Asaph, Humboldt (L.M.)
 *Arent, Asa S., Humboldt
 Arkin, Archie A., Des Moines
 *Armitage, George I., Murray
 Armstrong, Max A., Newell
 Armstrong, Robert B., Ida Grove
 Armstrong, William B., Ames
 Arnold, Thomas, Primghar
 Arthur, William R., Hampton
 Artis, George H., Portland, Oregon
 Ash, William E., Council Bluffs
 Ashby, Atchison A., Sioux City (L.M.)
 *Ashline, George H., Keokuk
 Augustine, Grant, Council Bluffs
 Auner, Jay F., Des Moines
 Austin, Forrest J., Fort Dodge
 Ayres, Chester A., Lorimor
 Bacon, Joshua E., Dubuque
 Bailey, John W., Des Moines
 *Bain, Clarence L., Corning
 Bairnson, George A., Cedar Falls
 *Baker, Charles J., Fort Dodge
 Baker, Walter E., Des Moines
 Baldwin, Leon A., Riverton
 Baldwin, Raymond M., Burlington
 Balkema, Walter S., Sheldon
 *Baltzell, Winston C., Charles City
 *Balzer, Walter J., Davenport
 Bannister, Murdoch, Ottumwa
 Banton, Oscar H., Charles City
 Barber, Oliver S., Creston
 Barbour, Howard W., Mason City
 Barg, Egmont H., Mason City
 *Barner, John L., Des Moines
 Barnes, Benjamin S., Shenandoah
 *Barnes, Bernard C., Des Moines
 Barnes, Milford E., Iowa City
 Barnett, Reu L., Atlantic
 Barnett, Sylvester W., Cedar Falls
 Barr, Guy E., Sioux City
 Barrett, Daniel C., Sioux City
 Barrett, James W., Jr., Independence
 Barrett, Sterling A., Waterloo
 Bartels, Robert N., Iowa City
 Bartlett, George E., New Sharon
 Barton, Edwin G., Ottumwa
 *Barton, John C., Independence
 Bartruff, Charles H., Reinbeck
 Bascom, Lewis A., Nora Springs
 Basinger, Byron L., Goldfield
 *Bassett, George H., Sac City
 *Bastron, Harold C., Red Oak
 Bates, Floyd E., Indianola
 *Bates, Maurice T., Des Moines
 Bates, William R., Fort Dodge
 *Baumgarten, Osear, Earlville
 *Bauseh, Richard G., Bellevue
 Bay, Frank N., Albion
 Beal, Arline M., Davenport
 Beam, Watson W., Rolfe (L.M.)
 Beardsley, David E., Cedar Rapids
 Beardsley, Ralph W., Livermore
 Beatty, Alexander S., Creston
 Beatty, Edmund D., Mallard (L.M.)
 *Beatty, Howard G., Creston
 *Beaumont, Fred H., Council Bluffs
 Beekman, Peter W., Perry
 Beddoes, Morris G., Oelwein
 Beeh, Edward F., Fort Dodge
 Bees, Louis E., Bennett
 Behrens, George W., Eldridge
 Belding, Leland J., Waucoma
 Bell, Edward P., Pleasantville
 Bellinger, Frank E., Council Bluffs
 Bender, Henry A., Waterloo
 Bendixen, Frederick C., LeMars
 Benfer, Merrill M., Davenport
 Bening, John P., Clarinda
 Bennett, Andrew W., Iowa City
 *Bennett, Geoffrey W., Oskaloosa
 *Bergstrom, Albin C., Missouri Valley
 Berkstresser, Charles F., Sioux City
 Bernard, Ransom D., Clarion
 *Berney, Paul W., Cedar Rapids
 Besser, Edward F., Newton
 Besser, Edward L., Iowa City
 Bessmer, William G., Davenport
 Best, Gordon N., Council Bluffs
 *Bettler, Philip L., Sioux City
 Beveridge, Thomas F., Muscatine (L.M.)
 Beyer, Arthur E., Guttenberg
 *Bezman, Harry S., Traer
 Bickert, Joseph N., Cedar Rapids
 *Bickley, Donald W., Waterloo
 Bickley, G. G., Jr., Waterloo
 *Bickley, John W., Waterloo
 Biebesheimer, George A., Reinbeck
 Bierring, Walter L., Des Moines (L.M.)
 Biersborn, Byron M., State Center
 Bigelow, Charles T., Clinton
 Bigelow, S. Edward, Fort Madison
 Bild, Elmer J., Page, Nebraska
 Billingsley, John W., Newton
 Binford, William S., Davenport
 *Bird, Raymond G., Clarion
 Birge, Richard F., Des Moines
 Birney, Cleanthus E., Estherville
 *Bisgard, Carl V., Harlan
 Bisgard, James A., Harlan (L.M.)
 *Bishop, James F., Davenport
 *Bjork, Floyd J., Keota
 Black, Harold C., Des Moines
 Black, John R., Jefferson
 Blackburn, Guy R., Fort Madison
 *Blackman, Nathan, Clarinda
 *Blackstone, Martin A., Sioux City
 Blaha, George A., Whitten
 *Blair, Fred L., Jr., Fonda
 Block, Charles E., Davenport
 *Block, Lawrence A., Davenport
 *Block, Walter M., Cedar Rapids
 Blome, Arthur L., Ottumwa
 Blome, Glenn C., Ottumwa
 Blong, Theodore E., Stacyville
 Blum, Aloysius A., Wall Lake
 *Blum, Otto S., Waverly
 Blume, Donald B., Sioux City
 Blume, Winfred R., Sioux City
 Bookoven, William A., Cresco
 *Boden, Herbert N., Truro
 *Boden, Worthey C., Davenport
 *Boe, Henry, Sioux City
 Boice, Clyde A., Washington
 *Boice, Clyde L., Washington
 Boiler, William F., Iowa City
 Boland, Francis W., Wichita, Kansas
 *Boller, Galen C., Traer
 *Bond, Thomas A., Des Moines
 *Bond, Thomas P., Des Moines (L.M.)
 *Bone, Harold C., Des Moines
 Bonnell, Frank S., Fairfield
 Borgen, Donald L., Gowrie
 Borre, Helge, Red Oak
 Bots, Irving H., Iowa City
 Bos, Cornelius N., Oskaloosa
 *Bos, Howard C., Oskaloosa
 Bosch, Calvin C. F., Sibley
 *Bossingham, Earl N., Clarinda
 Bossingham, Otmer N., Clarinda
 Boston, Burr C., Waterloo
 Boulware, Lois, Iowa City
 Bourne, Melvin G., Algona
 Bowenmyer, DeVoe O., Ottumwa
 Bowen, Frederick S., Woodburn
 Bowers, Arthur S., Orient
 Bowers, Bert A., Sioux City
 *Bowers, Clifford V., LeMars
 Bowers, Henry W., Nevada
 Bowie, Louis L., Marshalltown
 Bowman, Fred A., Leon (L.M.)
 Bowser, Will F., Davenport
 *Boyd, Eugene J., Iowa City
 Boyd, Frank E., Colfax
 Boyd, Julian D., Iowa City
 Boyer, Edward H., Mason City
 Boyer, Howard C., Council Bluffs
 *Boyer, Ulysses S., Davenport
 Bradford, Clyde R., Des Moines
 Bradley, Carl L., Newhall
 Braunlieh, George, Davenport
 *Brecher, Paul W., Storm Lake
 Breen, Adrian L., Independence
 *Brentan, Emanuel, Ottumwa
 Bretonen, Harold L., Emmetsburg
 Brewster, Calvin O., Britt
 *Brewster, Edward S., Boone
 Bridge, Barton B., Albert City (L.M.)
 Bridgeman, Harry L., Knoxville (L.M.)
 Bries, Frank J., Holy Cross
 Brink, Raymond J., Ayreshire
 Brinker, Marion H., Jefferson
 *Brinkhaus, Kenneth M., Iowa City
 Brinkman, William F., Pocahontas
 Brisbane, Royal E., Burbank, California (L.M.)
 Brittall, Chancey L., Chariton
 *Brobyn, Thomas E., Grinnell
 Broek, Walter R., Sheldon
 Broderick, Clarence E., Cherokee
 *Brody, Sidney, Ottumwa
 Broghammer, Benjamin G., Cedar Rapids
 *Brown, Addison W., Des Moines
 Brown, Arthur C., Council Bluffs
 Brown, Bernice L. E., Iowa City
 Brown, Douglas H., Forest City
 Brown, Ernest L. W., Iowa Falls
 Brown, Gates M., Dayton
 Brown, George B., Clarion
 Brown, Harold L., Sioux City
 Brown, James C., Littleport
 Brown, Kenneth R., Lamoni
 *Brown, Merle J., Davenport
 Brown, Samuel J., Panora (L.M.)
 *Brown, Wayne B., Mount Pleasant
 Brown, Willis E., Iowa City
 Brownstone, Sidney, Clear Lake
 Brubaker, Carl F., Corydon
 Brubaker, John F. R., Hubbard
 Bruce, James H., Fort Dodge
 Bruechert, Henry N., Parkersburg
 Brumer, Herbert B., Clinton
 Brummitt, Charles F., Centerville
 *Bruner, Julian M., Des Moines
 Brunk, Amos W., Prescott
 Brunner, Walter J., Akron
 Brush, C. Herbert, Shenandoah
 *Buchanan, John J., Milford
 Buckley, Charles E., Bloekton
 Buckmaster, Raleigh A., Dunkerton
 Bullock, Alfred H., Cushing
 *Bullock, Grant D., Washta
 Bullock, William E., Lake Park
 *Buneh, Harold McK., Shenandoah
 Bunge, Raymond G., Iowa City
 Burbank, Dean S., Pleasantville
 Burbank, Frank E., Pleasantville
 *Burbidge, Glen E., Logan
 *Bureh, Earl S., Dayton
 Bureham, Thomas A., Des Moines
 *Burdick, Francis D., Shenandoah
 *Buresh, Abner, Lime Springs
 *Burgesson, Floyd M., Des Moines
 *Burgess, Arthur W., Iowa Falls
 *Burke, Jerome C., Clinton
 Burke, Thomas A., Mason City
 *Burke, Thomas J., Davenport
 *Burleson, Marvin W., Fort Dodge
 *Burnett, Francis K., Clarinda
 Burnside, Raymond A., Des Moines
 *Burroughs, Hubert H., Sioux City
 Bursheim, Peder J., Des Moines
 Bush, Earl B., Ames
 Bushmer, Alexander, Orange City
 Butler, Margaret K., Fort Dodge
 Butterfield, Edwin J., Dallas Center (L.M.)
 *Butterfield, Elwyn T., Dallas Center

- Butterfield, Rosabell A., Indianola (L.M.)
 ★ Butts, John H., Waterloo
 Butzke, Ernest J., Hampton, Virginia
 ★ Buxton, Otho C., Jr., Webster City
 Buzard, Irenarch S., Jefferson (L.M.)
 Byers, Albert G., Coggon
 ★ Byers, Walter L., Sheffield
 ★ Byrnes, Clemment W., Dunlap
 Bywater, Joseph B., Des Moines
 Calbreath, Lloyd B., Humeston
 ★ Caldwell, John W., Des Moines
 ★ Callahan, George D., Iowa City
 Campbell, Benjamin F., Burlington
 Campbell, Nathan, Yarmouth
 Campbell, Thomas R., Sioux Rapids
 ★ Campbell, Walter V., Oskaloosa
 Canfield, Herbert W., Baxter
 Cantrell, Carmi, Lone Tree
 Cantwell, John D., Davenport
 ★ Carey, Edward T., Jr., Davenport
 Carey, Michael J., Council Bluffs
 Carlile, Amos W., Manning
 ★ Carlson, Elmer H., Muscatine
 Carlson, Frank G., Mason City (L.M.)
 ★ Carney, Roscoe P., Davenport
 Carpenter, Frank, Reasnor
 Carpenter, Fred E., Newton
 ★ Carpenter, Ralph C., Marshalltown
 Carr, Leslie L., West Union
 Carryer, Carl H., Des Moines
 Carson, Andros, Des Moines (L.M.)
 Carstensen, Albert B., Linn Grove
 ★ Cartwright, Forrest P., Grand Junction
 Carver, David C., Rockwell City
 Carver, Harry E., Earlham
 Carver, William F., Fort Dodge
 Cary, Walter, Dubuque
 Cash, William H., Lenox
 ★ Castell, John W., Fairfield
 ★ Castles, William A., Rippey
 Catterson, Leroy F., Oskaloosa
 Coughlan, Gerald V., Council Bluffs
 Cauley, Francis P., Anthon
 ★ Caulfield, John D., New Hampton
 Chadbourne, Theodore L., Vinton (L.M.)
 Chain, Leo W., Dedham
 Challed, Don S., Cedar Rapids
 Chamberlain, Lowell H., Des Moines
 Chambers, Charles L., Des Moines
 ★ Chambers, James W., Des Moines
 Chapler, Keith M., Dexter
 Chapman, Frederick J., Keokuk
 ★ Chapman, Robert M., Cedar Rapids
 Charlton, Thomas B., Clinton
 Chase, Sumner B., Fort Dodge
 Chase, Walter E., Rippey
 ★ Chase, William B., Jr., Des Moines
 Chase, William B., Sr., Des Moines
 Chenoweth, Charles E., Mason City
 ★ Chesnut, Paul F., Winterset
 Chester, Walter S., Albion
 Childs, Hal A., Creston (L.M.)
 Chilson, Alvin H., Plymouth
 Chisholm, Roderick B., Griswold
 Chittum, John H., Wapello
 Chittum, Josiah M., North Liberty
 Choate, Cora W., Marshalltown
 Christensen, Emil M., Garner
 Christensen, Eunice M., Iowa City
 Christensen, Everett D., Iowa City
 Christensen, John R., Eagle Grove
 ★ Christiansen, Charles C., Dixon
 Christiansen, John E., Durant
 Church, Ruth E., Washington
 ★ Clapsaddle, Dean W., Burt
 Clapsaddle, John G., Burt
 Clark, Frank H., Clarinda
 ★ Clark, George H., Oskaloosa
 Clark, Howard F., Stuart
 ★ Clark, James P., Estherville
 Clark, Oliver T., Keokuk
 Clark, Orson W., Ogden
 ★ Clark, Richardson E., Manchester
 Clark, Thomas D., Victor
 Clary, William H., Prescott (L.M.)
 Clasen, Henry W., Cedar Falls
 ★ Cleary, Hugh G., Fort Madison
 Closson, Charles L., Walker
 ★ Cmevla, Patrick M., Sioux City
 Cobb, Elliott A., Iowa City
 Cobb, Elliott C., Sioux City
 ★ Coburn, Frank E., Iowa City
 ★ Coddington, James H., Humboldt
 Cody, William E., Sioux City
 Coffin, Lonnie A., Farmington
 ★ Cogan, Samuel, Mount Pleasant
 Cogley, John P., Council Bluffs
 Cole, Elmer J., Woodbine (L.M.)
 Cole, Fern N., Iowa Falls
 Cole, Harold P., Thurman
 Cole, Julia, Ames
 Colletter, Charles C., Spencer
 Collins, Elmer E., Oskaloosa
 Collins, Harry A., Des Moines
 ★ Collins, Loren E., Estherville
 ★ Collins, Robert M., Council Bluffs
 Conaway, Aaron C., Marshalltown
 ★ Condon, Frank J., Centerville
 Conney, Roy M., Sergeant Bluff
 Connell, John, Des Moines
 Connelly, Edgar J., Dubuque
 Conner, Frank H., Nevada
 ★ Conner, John D., Nevada
 ★ Conzett, Donald C., Dubuque
 Cook, Clarence P., Des Moines
 Cook, Kenneth G., Fairfield
 ★ Cook, Stuart H., Rock Rapids
 Cook, Walter R., Pisgah
 ★ Cooper, Clark N., Waterloo
 Cooper, Gladys A., Red Oak
 Cooper, James S., Burlington
 Cooper, J. Clark, Villisca
 ★ Cooper, Raymond E., Keokuk
 Cooper, Thaddeus C., Ogden
 ★ Cooper, Wayne K., Iowa City
 Corbin, Sylvanus W., Corydon
 ★ Corcoran, Thomas E., Rock Rapids
 Cords, Charles H., Rudd
 ★ Corn, Henry H., Des Moines
 Cornell, Corwin S., Knoxville
 ★ Cornell, Dale D., Greenfield
 ★ Coughlan, Charles H., Fort Dodge
 ★ Coughlan, Daniel W., Des Moines
 ★ Courter, Willard O., Springville
 ★ Cowan, John A., Sioux City
 Cowgill, Frank W., Nevada
 Crabb, George M., Mason City
 Craig, James A., Keosauqua
 Crain, Lewis F., Deep River (L.M.)
 Crain, Mattie M., Deep River (L.M.)
 Crane, Wendell P., Holstein
 Crawford, Jennings, Cedar Rapids
 Crawford, Robert H., Burlington
 Cressler, Frank E., Churdan
 Cretzmeyer, Charles H., Algona
 Cretzmeyer, Francis X., Emmetsburg
 Crew, Arthur E., Marion
 Crew, Philip I., Marion
 Cronk, Charles H., Bloomfield (L.M.)
 ★ Cross, Donald L., Coon Rapids
 Crow, George B., Burlington
 Crow, Ira N., Fairfield
 ★ Crowder, Roy E., Sioux City
 ★ Crowell, Edwin A., Jr., Iowa City
 Crowley, Daniel F., Des Moines
 Crum, John R., Stanwood
 Crumpton, Robert C., Webster City
 Cruzen, John L., Barnes City
 ★ Culbertson, Robert A., St. Ansgar
 Cullen, Stuart C., Iowa City
 ★ Cullison, Robert M., Dike
 ★ Cunningham, John C., Dubuque
 Cunningham, Melvin B., Norwalk
 Cusick, George W., Davenport
 Cutler, Roy H., Little Sioux
 Dahl, Harry W., Des Moines
 Dahlbo, John E., Sutherland
 Dahlquist, Ralph M., Decorah
 ★ Daily, Milton, Sioux City (L.M.)
 Dalbey, Glenn M., Traer
 ★ Daly, James J., Decorah (L.M.)
 Danley, Royal C., Hamburg
 Darrow, Clarence A., Dubuque
 Daut, Walter W., Muscatine
 ★ Davey, William P., Emmetsburg
 Davidson, Thorald E., Mason City
 Davis, Arthur E., Seymour
 Davis, Charles M., Centerville
 ★ Dawson, Emerson B., Fort Dodge
 Dawson, Leon E., Des Moines
 Day, Charles S., Cedar Rapids
 Day, Philip M., Oskaloosa
 Day, William E., Clarksville
 ★ Dean, Abbott M., Council Bluffs
 Dean, Frank W., Council Bluffs (L.M.)
 Dean, Ray H., Washington (L.M.)
 Dean, William F., Osceola
 ★ DeCicco, Ralph, Des Moines
 ★ Decker, Henry G., Des Moines
 Decker, Jay C., Sioux City
 Deering, Albert B., Boone
 Deering, John S., Onawa
 DeGowin, Elmer L., Iowa City
 Demaree, Chester, Lacona
 Denney, Benjamin F., Britt
 Dennison, John C., Bellevue (L.M.)
 DeShaw, Earl H., Monticello
 Des Marias, Varina, Grundy Center
 ★ Deters, Donald C., Schaller
 Deur, Sherman J., Iowa City
 Devereux, Richard L., Sioux City
 Dewees, Frank L., Keokuk
 Dewey, Jay R., Schaller
 DeWitt, Charles H., Jr., Macedonia
 DeWitt, Franklin T., Nemaha (L.M.)
 ★ DeYarman, Kyle T., Morning Sun
 DeYoung, George M., George
 ★ DeYoung, Ward A., Glenwood
 Dickey, Claude G., Des Moines
 ★ Diddle, Albert W., Iowa City
 Diddy, Keith W., Perry
 Dierker, Bernard J., Fort Madison
 Dierker, Frank H., Fort Madison
 ★ Dimsdale, Lewis J., Sioux City
 Dingman, Marshal E., Urbana
 Ditto, Boyd L., Burlington
 Dixon, George L., Tucson, Arizona (L.M.)
 Doane, Grace O., Des Moines
 ★ Dobias, Stephen G., Chelsea
 Dobson, Richard A., Sioux City
 Doering, Valentine T., Fort Madison
 Dolan, Henry F., Anamosa
 Doles, James W., Knoxville
 Dolmage, George F., Buffalo Center
 Dolmage, G. Howard, Buffalo Center
 Donahue, James C., Centerville
 Donlan, Eugene V., Clinton
 Donnell, John W., Hudson
 Donohoe, Anthony P., Davenport
 Donohue, Edmund S., Sioux City
 Donovan, William H., Iowa City
 Doolen, Glen W., Davenport
 Doolittle, Russell C., Des Moines
 Doornink, William, Orange City
 ★ Dorner, Ralph A., Iowa City
 Dorsey, Thomas J., Fort Dodge
 Doss, William N., Leon
 Dowling, C. Dean, Waterloo
 ★ Down, Howard L., Sioux City
 Downing, James A., Des Moines
 ★ Downing, John S., Cedar Rapids
 Downing, Leroy M., Cedar Rapids
 Downing, Wendell L., LeMars
 ★ Downing, William L., Moulton (L.M.)
 Downs, Vernon S., Ottumwa
 ★ Doyle, Joseph L., Sigourney
 ★ Dressler, John B., Ida Grove
 Driver, Richard W., Waterloo
 ★ Droz, A. Keith, Washington
 Dulin, Evelyn H., Iowa City
 Dulin, John A., Sigourney
 Dulin, John W., Iowa City
 Dulin, Tarana J. G., Sigourney
 Duling, Raymond J., Sioux City
 ★ Dulmes, Abraham H., Klemme
 Dunkel, George K., Fairfield
 Dunkelberg, Elmer I., Waterloo
 Dunlap, Wallace A., Des Moines
 ★ Dunn, Francis C., Cedar Rapids
 Dunn, James, Davenport
 Durfee, Max L., Norman, Oklahoma
 Dusdieker, Stanley W., Des Moines
 ★ Dushkin, Milton A., Des Moines
 Dutton, Dean A., Van Horne
 Dvorak, Joseph E., Sioux City
 ★ Dwankowski, Carl, Mount Pleasant
 Dwyer, Bernard B., Preston
 Dwyer, Robert E., Clinton
 Dyson, James E., Des Moines
 Earl, Warren Z., Sioux City
 Ebersole, Francis F., Mount Vernon
 ★ Edington, Frank D., Spencer
 Edmonds, Charles W., Sioux City
 ★ Edstrom, Henry, Dubuque
 ★ Edwards, Charles V., Council Bluffs
 ★ Edwards, James F., Ames
 ★ Edwards, Ralph R., Centerville
 Egan, Thomas J., Bancroft
 ★ Egbert, Daniel S., Atlantic
 Eggermayer, George W., Elliott
 Eggleston, Alfred A., Burlington
 ★ Egloff, William C., Mason City
 Eiel, John O., Osage
 Eiel, Merrill O., Osage
 ★ Eigenfeld, Morris L., Burlington
 Einstein, Robert A., J., Iowa City
 Eland, Thomas L., Letts
 ★ Eller, Lancelot W., Kanawha
 ★ Elliott, Olin A., Des Moines
 ★ Elliott, Vance J., Knoxville
 ★ Ellis, Howard G., Des Moines
 ★ Ellison, George M., Clinton
 Ellyson, Charles W., Waterloo
 Ellyson, Craig D., Waterloo
 ★ Elmqvist, Homer S., Iowa City
 ★ Elson, Veryl J., Danbury
 Elvidge, George, Perry
 Ely, Francis A., Des Moines
 Emerson, Edward L., Muscatine
 ★ Emmons, Marcus B., Iowa City
 Ennis, Harry H., Decorah
 Ensley, Bruce, Shell Rock
 ★ Entringer, Albert J., Dubuque
 Entz, F. Harold, Waterloo
 Epley, Verne C., Des Moines
 ★ Ergenbright, Willard V., Atlantic
 ★ Ericsson, Martin G., Cedar Falls
 Ernst, Floyd W., New Albion
 Erskine, Arthur W., Cedar Rapids
 ★ Ervin, Lindsay J., Des Moines
 ★ Evans, Harold J., Davenport
 Evans, John G., New Hartford (L.M.)

- *Evans, William L., Sac City
- Everall, Bruce B., Monona
- Everson, Gustave A., Rolfe
- Faber, Luke A., Dubuque
- *Fall, Charles S., Jr., Adel
- Fallows, Howard D., Mason City (L.M.)
- Farlow, Charles T., Farnhamville
- Farnham, Alfred J., Traer
- Farnsworth, Harold E., Storm Lake
- Farnum, Earl P., Sibley
- Faust, John H., Manson
- *Fay, Oliver J., Des Moines
- *Fee, Charles H., Denison
- Fee, Knight E., Toledo
- Feightner, Robert L., Fort Madison
- Feller, Alto E., Ft. Bragg, North Carolina
- *Fellows, Joseph G., Ames
- Fellows, Liberty E., Newton
- Felter, Allan G., Van Meter
- Penlon, Leslie K., Clinton
- *Fenton, Charles D., Bloomfield
- Fenton, Robert L., Centerville
- Ferlic, Rudolph J., Carroll
- Field, George A., Des Moines
- *Field, Grace E. W., Iowa City
- Fields, Robert B., LaPorte City
- Fieseler, Walter R., Fort Dodge
- Files, Edward H., Cedar Rapids
- Fillenwarth, Floyd H., Charles City
- Finch, George H., Des Moines
- Findley, William J. K., Sac City (L.M.)
- *Fisch, Roman J., LeMars
- Fisk, Charlotte, Des Moines
- Fitzgerald, Joseph D., Sloan
- Fitzpatrick, Dennis F., Iowa City
- *Fitzpatrick, Matthew R., Mason City
- Flancher, Leon H., Des Moines
- *Flater, Norman C., Floyd
- *Flax, Ellis, Iowa City
- *Fleck, Warren L., Des Moines
- Fleischman, Abraham G., Des Moines
- Fletcher, Frederick W., Hinton
- *Flickinger, Roger R., Mason City
- Flocks, Rubin H., Iowa City
- *Floersch, Eugene B., Council Bluffs
- Floyd, Mark L., Iowa City
- Flynn, Charles H., Clarinda
- Flynn, James R., Cedar Rapids
- *Flynn, Joseph E., Jr., Iowa City
- Foley, Fred C., Newell
- Foley, Walter E., Davenport
- Foltz, Eloise G., Perry
- Fordyce, Frank W., Des Moines
- *Foss, Robert H., Remsen
- Foster, Jess W., Ankeny
- Foster, Morgan J., Cedar Rapids
- Foster, Samuel T., Adel
- Foster, Warren H., Clinton
- Foster, Wayne J., Cedar Rapids
- Foulk, Frank E., Des Moines
- *Fourt, Arthur S., Iowa City
- Fowler, Charles C., Lovilia
- Fowler, Willis M., Iowa City
- Fox, Charles L., Pella (L.M.)
- Fox, Ray A., Charles City
- Franchere, Chetwynd M., Mason City
- *Francis, Norton L., Iowa City
- *Frank, Louis J., Sioux City
- Frank, Owen L., Maquoketa
- Franklin, George W., Jefferson
- Fransco, Peter P., Ruthven
- Fraser, James B., Des Moines
- Fraser, John H., Monticello
- Frech, Raymond F., Newton
- Frederickson, Adolph R., Lansing
- Freligh, Clarence N., Waucoma
- French, Royal F., Marshalltown
- French, Valiant D., Glendale, California
- *Frey, Harry, Fairfield
- *Fritchen, Arthur F., Decorah
- Fritz, Lafe H., Dubuque
- Fry, John L., Kalona
- Fuerste, Frederick, Dubuque
- Fuller, Frank M., Keokuk (L.M.)
- Fullerton, Oscar L., Redding (L.M.)
- *Fullgrabe, Emil A., Indianola
- Furgerson, Lee B., Waterloo
- Gaard, Rasmus R., Watcliffe
- *Galinsky, Leon J., Oakdale
- *Gallagher, John P., Oelwein
- Galloway, Milton B., Webster City
- Galman, James J., Hospers
- Galvin, Robert J., Oelwein
- Gambee, Eric J., Earling
- Gamble, Robert A., Madrid
- *Gamet, Elmo E., Lamoni
- Ganoe, James O., Ogden
- *Gantz, Albert J., Greenfield
- *Ganzhorn, Harold L., Mapleton
- Gardner, Harold O., Waterloo
- Gardner, John R., Lisbon
- Gardner, Paul E., New Hampton
- *Garlinghouse, Robert O., Iowa City
- Garside, Arthur A., Davenport
- Gasson, James H., Bedford
- Gauger, John W., Early
- *Gaukel, Leo A., Onawa
- Gaumer, James S., Fairfield
- Gearhart, George W., Springville
- *Gearhart, Merriam, Springville
- Geescka, Otto A., Mount Pleasant (L.M.)
- *Geiger, Ulysses S., North English
- Gelfand, Ben B., Sioux City
- Gelfand, Della G., Sioux City
- *George, Everett M., Des Moines
- Gerard, Russell S., Waterloo
- Gerken, James F., Waterloo
- Gernsey, Merrit N., Waverly
- *Gerstman, Herbert, Marion
- Gessner, Frederick W., Dysart
- *Getty, Everett B., Primghar
- Gibbon, William H., Sioux City
- Gibbs, George M., Burlington
- Gibson, Chelsea D., Lake View
- *Gibson, Douglas N., Des Moines
- Gibson, Paul E., Des Moines
- *Gibson, Preston E., Davenport
- Giles, Francis E., Cresco
- Giles, George C., Oakland (L.M.)
- Gillfillan, Bruce L., Keokuk
- *Gillfillan, Clarence D. N., Eldon
- *Gillfillan, George W., Bloomfield
- Gillfillan, Homer J., San Francisco, California
- Gillett, Francis A., Oskaloosa
- *Gillett, Robert M., Oskaloosa
- Gillies, Carl L., Iowa City
- *Gilliland, Charles H., Albia
- Gillmor, Benjamin F., Red Oak
- Gingles, Earl E., Sioux City
- Gittins, Thomas R., Sioux City
- *Gittler, Ludwig, Fairfield
- Givens, Hezekiah F., West Bend
- Glasscock, Thomas J., Hawarden
- *Glesne, Otto N., Fort Dodge
- Gleysteen, Derk J., Alton
- *Gleysteen, Rodney R., Alton
- *Gloeckler, Bernhard B., Mount Pleasant
- *Glomset, Daniel A., Des Moines
- Glomset, Daniel J., Des Moines
- *Goad, Robley R., Muscatine
- Goen, Edwin J., Charles City
- Goenne, William C., Davenport
- Goggin, John G., Ossian
- *Goldberg, Louie, Des Moines
- Goltry, Charles F., Russell
- Goodenow, Sidney B., Colo
- Goodrich, Joseph A., Des Moines
- *Gordon, Arnold M., Des Moines
- *Gorrell, Ralph L., Clarion
- Gottlieb, Jacques S., Iowa City
- Gottsch, Erwin J., Shenandoah
- Gould, George R., Conrad (L.M.)
- Gower, Walter E., Pocahontas
- *Graber, Harold E., Fairfield
- *Graeber, Frederick O., Des Moines
- Graening, Charles H., Waverly (L.M.)
- *Graham, James W., Sioux City
- Gran, Albert G., Storm Lake
- Grandinetti, Arthur F., Oelwein
- Grant, Cecil C., Cedar Falls
- Grant, John G., Ames
- *Graul, Amandus H., Denison
- Graves, Max D., Cherokee
- Gray, Henry A., Keokuk
- Gray, Howard D., Des Moines
- Gray, John F., Melcher
- Gray, Ralph E., Eldora
- *Greek, Louis M., Des Moines
- Greenleaf, William S., Atlantic (L.M.)
- *Greenlee, Max R., Oskaloosa
- Griffin, Clark C., Jr., Vinton (L.M.)
- Griffin, Frank L., Baldwin
- Griffin, John M., Des Moines
- Griffin, Sarah M. F., Manson
- *Griffith, William O., Shelby
- Grimm, Peter G., Spirit Lake
- *Grinley, Andrew V., Rockwell City
- Groman, August, Odebolt (L.M.)
- *Grossman, Milton D., Sioux City
- Grossman, Raymond S., Marshalltown
- *Grossmann, Edward B., Orange City
- Grothaus, Dell L., Delta
- Grubb, Merrill W., Galva
- Gunn, Ross E., Boone
- *Gurau, Henry H., Des Moines
- Gutch, Roy C., Chariton
- Gutch, Thomas E., Albia
- Hage, Martin M., Lake Mills
- Hagen, Edward F., Decorah
- *Haines, Dietrich J., Des Moines
- Haish, Lily K., Dubuque
- *Hale, Albert E., Dougherty
- Hall, Bonnybel A., Maynard
- *Hall, Carl B., Dubuque
- Hall, Chuley C., Maynard
- Hall, Forest F., Webster City
- Halloran, William H., Audubon
- *Halpin, Lawrence J., Cedar Rapids
- Hamilton, Benjamin C., Jefferson (L.M.)
- Hamilton, Benjamin C., Jr., Jefferson
- Hamilton, Cecil V., Garner
- Hamilton, Harriett S., Council Bluffs
- Hamilton, Henry H., Cedar Rapids
- Hamstreet, Wilbur F., Titonka
- Hanchett, W. McMicken, Council Bluffs
- Hancock, John C., Dubuque
- Hands, Sidney G., Davenport
- Hankey, Daniel C., Council Bluffs
- Hansell, William W., Des Moines
- *Hansen, Fred A., Red Oak
- Hansen, Niels M., Des Moines
- Hansen, Robert F., Belmond
- Hansen, Robert R., Marshalltown
- *Hansen, Russell R., Storm Lake
- Hanske, Edward A., Bellevue
- Hanson, Frank H., Magnolia
- *Hanson, Laurence C., Jefferson
- *Hardin, John F., Bedford
- *Hardin, Robert C., Iowa City
- Hardwig, Oswald C., Waverly
- Harken, Conrad R., Osceola
- Harkness, Gordon F., Davenport
- Harman, Clarence, Burlington
- Harman, Dean W., Glenwood
- Harnagel, Edward J., Des Moines
- Harp, John F., Newton (L.M.)
- Harper, Edna K. S., Greenfield
- Harrington, Arlan F., Cedar Rapids
- Harrington, Raymond J., Sioux City
- Harris, Clinton E., Grinnell
- *Harris, Donald M., Sioux City
- Harris, Grove W., Marshalltown
- Harris, Herbert H., Battle Creek
- Harris, Ray R., Dubuque
- *Harris, Robert H., Mason City
- *Harrison, Glenn E., Mason City
- Hart, William E., Odebolt (L.M.)
- *Hartley, Byron D., Mount Pleasant
- Hartman, Frank T., Waterloo (L.M.)
- *Hartman, Howard J., Waterloo
- *Hartung, Walter, Iowa City
- Hastings, John C., Elma
- *Havlik, Aloysius J., Tama
- Hawkins, Emmet L., Council Bluffs
- Hawley, Olin B., Corning
- Hayek, John M., Des Moines
- *Hayne, Willard W., Paullina
- Hazard, Charles M., Arlington
- Hazlet, Kenneth K., Dubuque
- Heady, Conda C. C., Bloomfield (L.M.)
- Heald, Clarence L., Sigourney
- Healy, Maurice A., Boone
- *Healy, Maurice J., Boone
- Heathman, Frank E., Pocahontas
- *Hecker, Friedrich A., Ottumwa
- *Hecker, John T., Cedar Rapids
- *Hedgcock, Lewis E., Hampton
- Heetland, Louis H., Sibley
- *Heffernan, Chauncey E., Sioux City
- Heilman, Ernest S., Ida Grove (L.M.)
- Heise, Carl A., Missouri Valley
- *Heise, Carl A., Jr., Missouri Valley
- *Heitzman, Paul O., Burlington
- Heles, John B., Dubuque
- *Henderson, Lauren J., Cedar Falls
- *Henderson, Walker B., Oelwein
- Hendrickson, Alvin H., Sioux City
- Henley, Edmund, Nora Springs
- Henkin, John H., Sioux City
- Hennes, Raphael J., Oxford
- Hennessey, Felix A., Calmar
- *Hennessey, J. Donald, Council Bluffs
- Hennessey, M. Charles, Council Bluffs
- *Henning, Garold G., Milford
- Henry, Clyde A., Farson
- Henry, Hiram B., Des Moines
- Herman, John C., Boone
- Hermesen, Paul J., Bronson
- Herry, Peter M., Prairie City
- *Herrick, Thomas G., Gilmore City
- Herrmann, Christian H., Jr., Amana
- Herron, David A., Iowa Falls
- Hersch, Thomas F., Cedar Rapids
- *Hersey, Nelson L., Independence
- Hess, William C., Cresco
- *Hessin, A. Laurence, Iowa City
- Heusinkveld, Henry J., Jr., Clinton
- *Hibbs, Ralph E., Oskaloosa
- Hickenlooper, Carl B., Winterset
- *Hickerson, Luther C., Brooklyn
- Hickman, Charles S., Centerville
- *Hicks, Wayland K., Sioux City
- Hight, William E., Des Moines
- Hill, Christine E., Council Bluffs
- *Hill, Don E., Clinton
- Hill, James C., Newton
- Hill, James W., Mount Ayr
- Hill, Julia F., Pittsburgh, Pennsylvania
- Hill, Kathryn D., Council Bluffs
- Hill, Lee F., Des Moines
- Hills, Henry M., Lamoni (L.M.)

- Hills, Robert A., Russell
Hinrichs, Robert G., Manson
★Hobart, Francis W., Lake City
Hoeven, Edward B., Ottumwa
Hoffman, Paul M., Tipton
Hoffman, Richard F., Iowa City
Hoffmann, Alfred A., Waterloo
Hofmann, William P., Davenport
★Hogan, Paul W., Waukon
Hogle, William M., Keokuk
Holbrook, Francis R., Des Moines
Hollis, Edward L., Marengo
Holman, Henry D., Mason City
Holmes, Wilson W., Keokuk
Holtey, Joseph W., Ossian
Hommel, Placido R. V., Elkader
★Honke, Edward M., Sioux City
Hooper, Lester E., Indianola
Hope, Justin M., Washington, D. C.
Hopkins, David H., Glidden
Hornaday, William R., Des Moines
Horton, Vincent J., Calmar
Hosford, Horace F., Burlington
★Hospodarsky, Leonard J., Ridgeway
Hotz, Edward J., Strawberry Point
★Houlahan, Jay E., Mason City
★Houlihan, Francis W., Ackley
Houlihan, Thomas J., Ida Grove (L.M.)
Houser, Blanche W., Cedar Rapids
Houser, Cass T., Cedar Rapids
Housholder, Harold A., Winthrop
Houston, Bush, Nevada
Hovenden, John H., Laurens
★Howard, Bruce F., Jewell
Howard, Fred H., Strawberry Point
Howard, Lloyd G., Council Bluffs
Howard, William A., West Burlington
Howard, William H., Marshalltown
Howe, Lysle C., Muscatine
Howell, Elias B., Ottumwa
★Howell, Homer P., Ottumwa
Howland, Charles F., Des Moines
★Hoyt, Charles N., Cedar Falls
Hubbard, Frank A., Columbus Junction
★Huber, Robert H., Charles City
Hudek, Joseph W., Garnaville
Hudson, Jessie B., Hampton
Huffman, William C., Iowa City
★Hughes, Robert O., Ottumwa
Hull, Henry C., Washington (L.M.)
★Hurevitz, Hyman M., Davenport
Huston, Daniel F., Burlington
Huston, Herbert M., Ruthven (L.M.)
★Huston, Marshall D., Centerville
Huston, Paul E., Iowa City
Huston, Samuel W., Mount Pleasant
Hyatt, Charles N., Albion (L.M.)
★Hyatt, Charles N., Jr., Humeston
Ihle, Charles W., Cleghorn
★Ihle, Charles W., Jr., Cleghorn
Ingham, Paul G., Mapleton
Ingraham, David R., Sewal
★Irish, Thomas J., Forest City
Irving, Noble W., Des Moines
Irwin, Charles E., Billings, Montana
★Irwin, Ralph L., Iowa City
Isenberg, Bertice A., Lohrville
Jackson, James M., Jefferson
Jackson, James S., Mount Pleasant
Jackson, Robert L., Iowa City
Jacoby, James A., Burlington
Jaenicke, Kurt, Clinton
★James, Audra D., Des Moines
★James, David W., Kamrar
James, Lora D., Fairfield
James, Peter E., Elkhorn
★James, Roger A., Allison
Jameson, Robert E., Davenport
Janse, Phillip V., Algona
★Jansonius, John W., Eldora
★January, Lewis E., Iowa City
Jardine, George A., New Virginia
Jarvis, Fred J., Oskaloosa
Jarvis, Harry D., Chariton
Jeans, Philip C., Iowa City
Jeffries, Roy R., Waukon
Jenkins, George A., Albion
★Jenkins, George D., Burlington
Jenkinson, Harry R., Iowa City
Jenks, Alonzo L., Jr., Des Moines
★Jensen, Arnold L., Council Bluffs
Jensen, Arthur E., Humboldt
Jensen, Leroy E., Audubon
Jepson, William, Sioux City (L.M.)
Jerdee, Ingebrecht C., Clermont
Jessup, Parke M., Muscatine
Jinderlee, Joseph W., Cresco
★Jirsa, Harold O., Cedar Rapids
Johann, Albert E., Des Moines
Johnson, Aaron Q., Sioux City
Johnson, Albert P., Sigourney (L.M.)
Johnson, Aldis A., Council Bluffs
Johnson, Chester H., Cherokee
Johnson, Charles A., Coon Rapids
Johnson, George M., Marshalltown
Johnson, Glenn R., Ottumwa
Johnson, Harvey A., Atlantic
Johnson, J. A. William, Marshalltown
Johnson, Jonathan, Alden
Johnson, Melvin T., Fort Dodge
Johnson, Norman M., Clarinda
★Johnson, Robert J., Iowa Falls
★Johnson, William A., Alden
★Johnston, C. Harlan, Des Moines
Johnston, Florence D., Cedar Rapids
Johnston, George B., Estherville
Johnston, Harry L., Ames
Johnston, Helen, Des Moines
Johnston, Howard H., Hampton
Johnston, Kenneth L., Oskaloosa
Johnston, Wayne A., Dubuque
★Johnstone, Alexander A., Keokuk
Jones, Cecil C., Des Moines
Jones, Charles L., Gilmore City
★Jones, Clare C., Spencer
Jones, Harry J., Cedar Rapids
Jones, Henry D., Schleswig
Jones, Lewis H., Wall Lake (L.M.)
Jones, Thomas S., Waukee
★Jongeward, Albert J., Jefferson
Jongeward, Jeannette, Jefferson
Jordan, Carl F., Des Moines
Jordan, John W., Maquoketa
Jowett, John R., Clinton
★Joyner, Nevill M., Fort Dodge
Joynt, Albert J., Waterloo
Joynt, Martin J., LeMars
Joynt, Michael F., Marcus
Junger, Emil C., Soldier
Kaach, Harry F., Clinton
Kabrack, Ola A., Jackson, Minnesota
Kadel, Merl A., Tipton
Kahler, Hugo V., Reinbeck
★Kanealy, John F., Iowa City
★Kaplan, David, Sioux City
Kas, Thomas D., Sutherland
Kassmeyer, John C., Dubuque
★Kast, Donald H., Des Moines
Katherman, Charles A., Sioux City
Katzmann, Frederick S., Des Moines
Kauffman, William A., Marshalltown
Kaufman, Ernest L., Fort Atkinson
Keane, John L., Dubuque
Keech, Roy K., Cedar Rapids
★Keefe, Patrick E., Sioux City
Keen, Burlin E., Des Moines
Keeney, George H., Mallard
★Keislar, Henry D., Iowa City
Keith, Charles W., Strawberry Point
★Keith, John J., Marion
★Kelley, Edmund J., Des Moines
Kelly, Laurence E., Des Moines
Kelly, Dennis H., Des Moines
Kelly, Joseph I., Burlington (L.M.)
★Kenefick, John N., Algona
Kennedy, Edward P., Swaledale
Kennedy, Elizabeth S., Oelwein
Kennedy, William C., Somers
★Keohen, Gerald F., Oskaloosa
Kern, Lester C., Waverly (L.M.)
Kerr, H. Dabney, Iowa City
Kerr, Johnston H., Akron
Kerr, William, Randolph
★Kerr, William H., Hamburg
Kershner, Frank O., Clinton
Kersten, Ernest M., Fort Dodge
Kerwick, Joseph M., New Hampton
Kessell, James E., Des Moines
Kestel, John L., Waterloo
Kettelkamp, Enoch G., Monona
Key, Samuel N., Jr., Iowa City
Keyser, Ralph E., Marshalltown
★Kieck, Ernest G., Cedar Rapids
Kiesau, Frederick W., Postville
★Kiesau, Milton F., Postville
Kiesling, Harry F., Lehigh
Kilgore, Benjamin F., Des Moines
Kimball, John E., West Liberty
★Kimberly, Lester W., Davenport
King, David H., Batavia
★King, Dean H., Spencer
★King, Oran W., Des Moines
★King, Ross C., Clinton
Kingsbury, Charles L., Keokuk
Kingsbury, Earl L., Keokuk
★Kirch, Walter A. W., Des Moines
Kirkegaard, Smith C., Estherville
Kitson, Walter W., Atlantic
Klein, John L., Muscatine (L.M.)
Klein, John L., Jr., Muscatine
Kleinberg, Henry E., Des Moines
Kline, Samuel, Sioux City
★Klocksiem, Roy G., Odebolt
★Klok, George J., Council Bluffs
★Kluver, Herman C., Fort Dodge
Knight, Benjamin L., Cedar Rapids
Knight, Edson C., Garwin
★Knight, Russell A., Rockford
Knipe, James B., Armstrong
Knipfer, Robert L., Jesup
★Knoll, Albert H., Dubuque
★Knott, Peirce D., Sioux City
★Knott, Robert C., Sioux City
Knowles, Fred L., Fort Dodge
Knox, James M., Cedar Rapids
Knudsen, Hubert K., Clinton
Koch, George W., Anaheim, California (L.M.)
★Koehne, Frederick D., Audubon
Koeneman, Eugene O., Eldora
Koob, William R., Brayton
★Koontz, Lyle W., Vinton
★Korfmacher, Edwin S., Grinnell
Kornder, Louis H., Davenport
Korns, Horace M., Iowa City
Koser, Donald C., Cherokee
Kottke, Elmer E., Santa Monica, California
★Kraakauer, Max, Davenport
Krause, Charles S., Cedar Rapids
Krejsa, Oldrich, Cedar Rapids
Krepelka, George E., Osage
Kreul, Dwight G., Davenport
Kriebs, Frank J., Elkport (L.M.)
Kriegbaum, Horace T., Davenport
Kriegstein, Joe M., Sioux City
★Krigsten, William M., Sioux City
★Kruckenberg, William G., Mount Vernon
Kuhl, Augustus B., Davenport
★Kuhl, Augustus B., Jr., Davenport
Kuhn, Leo C., Decorah
★Kuitert, John H., St. Cloud, Minnesota
Kulp, Raymond R., Davenport
★Kuntz, George S., Sibley
★Kurth, Clarence J., Council Bluffs
Kurtz, Cecilia M., Cedar Rapids
Kyle, William S., Washington
Labagh, Nicholas W., Mystic
★LaDage, Leo H., Davenport
Ladd, Fred G., Cedar Rapids
LaForce, Edward F., Burlington (L.M.)
★Lage, Raleigh H., Iowa City
Laidley, Wallace G., Ogden
Lamb, Frederick H., Davenport
Lamb, Harry H., Davenport
Lambach, Frederick, Davenport (L.M.)
Lampe, Elmer L., Bellevue
★Lande, Jacob N., Sioux City
★Langford, William R., Epworth
Langworthy, Henry G., Dubuque
★Lannon, James W., Clear Lake
Larimer, Robert N., Sioux City
Larsen, Elmer A., Centerville
★Larsen, Harold T., Fort Dodge
Larson, Andrew G., Dickens
★Larson, John B., Laurens
★Larson, Lester E., Decorah
★Larson, Marvin O., Hawarden
Laughhead, Charles A., Iowa City
★Laughlin, Ralph M., Tipton
Lauder, Frank T., San Diego, California (L.M.)
Lauder, Lloyd H., Marshalltown
Lawrence, Joseph W., Dubuque
Lease, Nimrod J., Crawfordville (L.M.)
Lee, Gisle M., Thompson (L.M.)
Lee, Wayne R., Burlington
★Leedham, Charles L., Springville
★Leehey, Paul J., Independence
Leffert, Frank B., Centerville
★Lehman, Emery W., Des Moines
Leighton, Lewis L., Fort Dodge
★Leik, Donald W., Dubuque
★Leinbach, Samuel P., Belmond
Leinfelder, Placidus J., Iowa City
Leiter, Herbert C., Sioux City
Leith, George G., Wilton Junction
★Lekwa, Alfred H., Story City
★Lemon, Kenneth M., Oskaloosa
★Lenaghan, Robert T., Clinton
Lenzmeier, Albert J., Davenport
Leonard, Bertram B., Jr., Anthon
Leonard, Frederick S., Dubuque
★Leserman, Lester K., Rolfe
Lessenger, Ernest J., New London
Levin, Harry M., Waterloo
Lewis, Faye C., Webster City
★Lewis, William B., Webster City
Lichter, Theodore W., Edgewood
Lichty, Ernest J., Kingsley
Lierle, Dean M., Iowa City
Liken, John A., Creston
★Limbirt, Edwin M., Council Bluffs
Limburg, J. Irwin, Jefferson
★Limburg, John L., Jr., Jefferson
Lincoln, Simon E., Des Moines
★Lindley, Ellsworth L., Muscatine
Lindsay, Vernard T., Glidden
Linn, Ellis G., Des Moines (L.M.)
Liska, Edward J., Ute
★Lister, Kenneth E., Chariton
Little, Luther W., Atkins

- Lloyd, John M., Washington
 ★Locher, Robert C., Cedar Rapids
 Lock, Arthur L., Rock Valley
 Lockhart, Harold A., Cedar Rapids
 ★Loeck, John F., Aurora
 Loes, Anthony M., Dubuque
 Logan, William P., Iowa City
 Lohman, Frederick H., Waterloo
 ★Lohmann, Carl J., Burlington
 ★Lohr, Phillips E., Churdan
 Loizeaux, Charles E., Dubuque
 ★Long, Draper L., Mason City
 Longstreth, Clyde M., Atlantic
 ★Longwell, Freeman H., Iowa City
 Longworth, Wallace H., Boone
 Loosbrock, John F., Perry
 Loose, David N., Maquoketa (L.M.)
 ★Lorfeld, Gerhard W., Davenport
 Losh, Clifford W., Des Moines
 Lott, Guy A., Osage
 Lott, Robert H., Carroll
 Love, Francis L., Iowa City
 ★Lovejoy, E. Parish, Des Moines
 Lovelady, Ralph, Sidney
 Lovett, Charles E., Lineville
 Lovett, Earl D., Vinton
 Loving, Luther W., Estherville
 ★Ludwick, Arthur L., Jr., Waterloo
 Luehrsmann, Bernard C., Dyersville
 Luehrsmann, Bernard H., Dyersville
 Luginbuhl, Christian B., Des Moines
 Luke, Edward, Coin
 Lundvick, Arthur W., Gowrie
 Luse, Ralph F., Clinton
 Luthy, Karl R., Mishawaka, Indiana
 Lutton, John D., Sioux City
 Lynch, Robert J., Des Moines
 Lynn, Arthur R., Marshalltown
 Lynn, Clarence E., Dubuque
 Lytle, Carl C., Dubuque
 MacEwen, Ewen M., Iowa City
 ★Mackie, Donald G., Charles City
 Mackin, M. Charles, Des Moines (L.M.)
 MacLeod, Hugh G., Greene
 MacNaughton, Luther D., Eagle Grove
 Macrae, James G., Creston
 Madsen, Henry V., Waterloo
 ★Magaret, Ernest C., Glenwood
 ★Magdsick, Carl, Charles City
 Magee, Emery E., Waterloo
 Mahin, Frank M., Ainsworth
 ★Maiden, Snyder D., Council Bluffs
 ★Mailliard, Robert E., Storm Lake
 ★Maire, Eugene J., Vail
 Maloy, Wayland H., Shenandoah
 Manahan, Charles A., Vinton
 Mantle, William B., Albion
 Mantz, Russell L., Cedar Rapids
 Maplethorpe, Charles W., Toledo
 ★Marble, Edwin J., Marshalltown
 Marble, Ira A., Sheffield
 Marble, Pearl L., Liscomb
 ★Marble, Willard P., Marshalltown
 Marek, Joseph E., Mason City (L.M.)
 Maresh, George, Vancouver, Washington
 ★Margolin, Julius M., Perry
 Marinos, Harry G., Mason City
 Maris, Cornelius, Sanborn
 Maris, Gerrit, Hull
 Maris, William, Sioux Center
 Mark, Edward M., Clarksville
 Marker, John I., Davenport
 ★Marquis, Fred M., Waterloo
 ★Marquis, George S., Des Moines
 Marr, James, Silver City
 ★Marrs, Walford D., Tabor
 Marsh, Elinor, Council Bluffs
 Marsh, Frederick E., Council Bluffs
 Marsh, William E., Eldora
 Martin, George H., Eagle Grove
 Martin, Hobart E., Clinton
 ★Martin, James W., Holstein
 Martin, John F., Latimer
 ★Martin, Lee R., Council Bluffs
 Martin, Loran M., Fort Dodge
 ★Martin, Ronald F., Sioux City
 Martin, Sidney D., Carroll
 Mason, Stella M., Mason City (L.M.)
 Masson, Hervey F., Washington
 ★Mast, Truman M., Washington
 ★Mater, Dwight A., Knoxville
 ★Matheson, John H., Des Moines
 Mathias, John P., Mediapolis (L.M.)
 Mathiasen, Aileen E., Council Bluffs
 Matthews, Damon G., Milton
 Matthews, Robert J., Clarinda
 Matthey, Carl H., Davenport
 Matthey, Walter A., Davenport
 ★Mattice, Lloyd H., Danbury
 Maurer, George A., LeMars
 ★Mauritz, Emory L., Des Moines
 Maxwell, Charles T., Sioux City
 Maxwell, John, What Cheer
 May, George A., Des Moines
 McAllister, James, Odebolt
 McBride, James T., Des Moines (L.M.)
 McBride, Robert H., Sioux City
 McBurney, George F., Belmont
 McCaffrey, Eugene H., Des Moines
 McCall, John H., Allerton
 McCarl, J. Jay, Sac City
 McCarthy, Charles K., Webster City
 McCarthy, Frank D., Sioux City
 McCartney, William H., Des Moines
 McClean, Earl D., Des Moines
 McClintock, John T., Iowa City (L.M.)
 McClure, Ernest C., Bussey (L.M.)
 McClure, Gail A., Ames
 McClurg, F. Haven, Fairfield
 ★McConkie, Edwin B., Cedar Rapids
 McConkie, Willis L., Carroll
 McConnaughey, James T., Mount Pleasant
 ★McCoy, Harold J., Des Moines
 McCrary, Warren E., Lake City
 McCrae, Eppie S., Eddyville (L.M.)
 McCreedy, Murry L., Ames
 McCreery, John W., Whittemore
 McCreight, George C., Des Moines
 ★McCuiston, Harry M., Sioux City
 ★McDaniel, John D., Marengo
 McDannell, John, Nashua
 ★McDonald, Donald J., Des Moines
 McDonald, James E., Mason City (L.M.)
 McDowall, Gilbert T., Gladbrook
 McDowell, William O., Grundy Center
 McElderry, Donald, Princeton
 McFarland, Guy E., Ames
 ★McFarland, Guy E., Jr., Ames
 ★McFarland, Julian E., Ames
 McGill, Arthur A., Danbury
 ★McGilvra, Raymond I., Guthrie Center
 ★McGowan, James P., Harlan
 McGrane, Merle J., New Hampton
 McGrath, William J., Elkader
 McGready, Joseph H., Independence (L.M.)
 McGuire, Kenneth L., Keota
 McGuire, Roy A., Fairfield
 McHugh, Charles P., Sioux City
 McIntosh, Charles B., Iowa City
 McKean, Alexander C., Mount Pleasant
 McKean, Frank F., Allison
 ★McKee, Thomas L., Keokuk
 McKirahan, Josiah R., Wayland
 ★McKitterick, John C., Burlington
 McLaughlin, Charles W., Washington
 McMahon, Thomas, Wyoming (L.M.)
 McManus, Joseph P., Graettinger
 ★McMeans, Thomas W., Davenport
 McMillen, Arch S., Fort Dodge
 McMurray, Edward A., Newton
 ★McNamee, Jesse H., Des Moines
 McPherrin, Henry I., Des Moines
 ★McQuillen, Charles W., Charles City
 ★McQuiston, J. Stuart, Cedar Rapids
 McTaggart, William B., Fort Dodge
 ★McVay, Melvin J., Lake City
 Mead, Frank N., Cedar Falls (L.M.)
 Meany, John F., Rockwell
 Meents, Diedrich J., Fort Madison
 ★Meffert, Clyde B., Cedar Rapids
 Meggers, Edward C., McGregor
 ★Megorden, William H., Mount Pleasant
 Mehler, Frank R., New London
 Melgaard, Bennett A., Sioux City
 Mellen, Robert G., Clinton
 Mercer, Clifford D., West Union (L.M.)
 Meredith, Loren K., Des Moines
 Mereness, Herbert D., D-liver
 Merkel, Arthur E., Des Moines
 ★Merkel, Byron M., Des Moines
 ★Merrick, John H., Glenwood
 Merrill, Charles H., Oskaloosa
 Merritt, Arthur M., Des Moines
 Mershon, Clinton E., Adel (L.M.)
 Meyer, Alfred K., Camanche
 ★Meyer, George R., Marshalltown (L.M.)
 ★Meyer, Milo G., Marshalltown
 Meyer, Valentine J., Glenwood
 Meyers, Frank W., Dubuque
 Meyers, Henry A., Davenport
 Michel, Bernard A., Dubuque (L.M.)
 Mikelson, Clarence J., Iowa City
 Miller, Brownlow B., Tabor
 Miller, Chester I., Iowa City
 ★Miller, Donald F., Williamsburg
 Miller, Enos D., Wellman
 Miller, Howard L., Cedar Rapids
 ★Miller, Jay R., Wellman
 Miller, Johannes J., Ackley
 Miller, Lawrence A., North English
 ★Miller, Oscar H., Estherville
 Miller, Temple M., Muscatine
 Miller, Wilbur R., Iowa City
 Miller, William B., Centerville
 Millicie, Glenn S., Battle Creek
 Millikan, Clark H., Iowa City
 Mills, Ernest M., LeGrand (L.M.)
 Mills, Frank W., Ottumwa (L.M.)
 Miltner, Leo J., Davenport
 Minassian, Harootune A., Des Moines (L.M.)
 Minassian, Thaddeus A., Des Moines
 ★Miner, James B., Jr., Charles City
 Miner, James B., Sr., Charles City (L.M.)
 ★Missildine, Whitney H., Eagle Grove
 Missman, Walter F., Klemme
 Mitchell, Claire H., Indianola
 ★Moen, Stanley T., Hartley
 ★Moerk, Robert F., Burlington
 Moershel, Henry G., Homestead
 Moes, Matthew J., Dubuque
 Mol, Henry L., Grundy Center
 ★Montgomery, Guy E., Keota
 Montz, Fred, Lowden
 Moon, Barclay J., Cedar Rapids
 ★Mooney, Felix P., Jewell
 Mooney, James C., Des Moines
 Moore, Daniel V., Sioux City
 ★Moore, Edson E., Osage
 ★Moore, Gage C., Ottumwa
 Moore, Harold H., Ottumwa
 Moore, Harris C., Melbourne
 Moore, Jesse C., Eldon
 Moore, Pauline V., Iowa City
 Moorehead, Harold B., Underwood
 Moran, Thomas A., Melrose
 ★Morden, Richard P., Des Moines*
 Morden, Roy R., Des Moines
 Morgan, Earl E., Sioux City
 Morgan, Fred B., Clinton
 Morgan, Harold W., Mason City
 ★Morgan, Paul W., Mason City
 Morganthal, Otis P., Templeton
 ★Moriarty, John F., Rock Rapids
 Moriarty, Lauren R., Villisca
 Morris, Zenella N., Stockport (L.M.)
 Morrison, Edward D., Fort Dodge
 ★Morrison, John R., Carroll
 Morrison, John W., Alta
 Morrison, Orry C., Carroll
 ★Morrison, Roland B., Carroll
 Morrison, Wesley J., Cedar Rapids (L.M.)
 Morse, Charles H., Eagle Grove (L.M.)
 Morton, Elmer E., Manning
 Morton, Matthew T., Estherville
 ★Mosher, Martin L., Jr., West Branch
 ★Moskovitz, Julius M., Council Bluffs
 Mott, William H., Farmington
 Moulton, Milo W., Bellevue
 Mountain, Elmer B., Des Moines
 Mountain, George E., Des Moines
 Mueller, Emil F., Dyersville
 Mueller, James A., Fenton
 ★Mueller, John J., Dubuque
 Muench, Virgil O., Nichols
 ★Mugan, Robert C., Sioux City
 ★Muhs, Emil O., Muscatine
 ★Mullen, Leo M., Mason City
 ★Mullmann, Arnold J., Adel
 Mulsov, Frederick W., Cedar Rapids
 ★Mumma, Claude S., Des Moines
 Munger, Elbert E., Jr., Spencer
 Mungier, Elbert E., Jr., Spencer
 Murchison, Kenneth, Sidney
 ★Murphy, Arlo L., Fredericksburg
 Murphy, Cornelius B., Alton
 Murphy, George C., Waterloo
 ★Murphy, James H., Des Moines
 Murphy, Joseph J., Cedar Rapids
 Murphy, Thomas B., Forest City
 ★Murray, Edward S., Cedar Rapids
 Murray, Frederick G., Cedar Rapids
 Murray, Jonathan H., Burlington
 Murtaugh, James E., New Hampton
 Myers, Edward M., Woodward
 Myers, Judson W., Postville
 ★Myers, Kermit W., Sheldon
 ★Nagyfy, Stephen F., Iowa City
 Nash, Edwin A., Ottumwa
 Nauman, Ernest C., Waterloo
 Neal, Emma J., Cedar Rapids
 Nederhiser, Morgan I., Cascade
 ★Needles, Roscoe M., Atlantic
 Nelken, Leonard, Clinton
 Nelken, Viola D., Clinton
 ★Nelson, Arnold L., Des Moines
 ★Nelson, Carrol C., Red Oak
 Nelson, Fred L., Ottumwa
 ★Nelson, Frederick L., Jr., Ottumwa
 Nelson, Harry E., Dayton
 Nelson, Leo C., Jefferson
 Nelson, Paul O., Emmetsburg
 Nelson, Robert J., Clinton
 Nemece, Joseph J., Cedar Rapids
 Nesler, Alfred B., Dubuque
 Netolicky, Joseph Y., Solon
 ★Netolicky, Robert Y., Cedar Rapids
 Netolicky, Wesley J., Cedar Rapids
 ★Neu, Harold N., Sac City
 ★Neufeld, Robert J., Davenport
 Neuzil, William J., Cedar Rapids

- Newell, William C., Ottumwa
 Newland, Don H., Belle Plaine
 Newland, Elmer R., Drakesville
 Newlove, Frank E., Batavia, New York
 Newman, Cloyce A., Bode
 ★Newman, Robert W., Iowa City
 Niblock, George F., Derby
 ★Nicholson, Clyde G., Spirit Lake
 ★Nicoll, Charles A., Panora
 Nicoll, David T., Mitchellville (L.M.)
 Nielsen, Rudolph F., Cedar Falls
 Nielson, Arthur L., Harlan
 ★Niemann, Theodore V., Brooklyn
 ★Nierling, Paul A., Cresco
 Noble, Frederick W., Fort Madison
 Noble, Harold F., Fort Madison
 Noble, Lloyd E., Marshalltown
 Noble, Nelle S., Des Moines
 Noble, Rusl P., Cherokee
 ★Noé, Carl A., Cedar Rapids
 Noé, Charles F., Amana (L.M.)
 Nomland, Ruben, Iowa City
 ★Noonan, James J., Marshalltown
 Nord, Donald H., Cambridge
 ★Norment, John E., Clinton
 North, Frank R., Winfield
 Norton, Alva C., Rockwell City (L.M.)
 Norton, Vera V., Waverly
 ★Noun, Louis J., Des Moines
 ★Noun, Maurice H., Des Moines
 Nourse, Leslie M., Des Moines
 Null, Frederick F., Hawarden
 Nyquist, David M., Eldora
 Nysewander, Christian, Des Moines (L.M.)
 Ober, Frank G., Burlington
 Obermann, Charles F., Cherokee
 ★O'Brien, Cecil S., Iowa City
 ★O'Brien, Stephen A., Mason City
 ★O'Connor, Edwin C., New Hampton
 ★O'Donnell, Joseph E., Clinton
 ★O'Donoghue, Arch F., Sioux City
 ★O'Donoghue, James H., Storm Lake
 ★Oelrich, August M., Hull
 ★Oelrich, Carl D., Sioux Center
 Oeggel, Herman D., Maurice
 O'Keefe, John E., Waterloo (L.M.)
 ★O'Keefe, Paul T., Waterloo
 Okerlin, Oscar W., Essex
 ★O'Leary, Francis B., George
 Olsen, Martin L., Des Moines
 Olson, Evelyn M., Winterset
 ★Olson, Paul F., Dubuque
 Olson, Russell L., Northwood
 ★O'Neal, Harold E., Tipton
 ★Osborn, Clarence R., Dexter
 ★Osinup, Paul W., Sioux City
 Osten, Burdette H., Northwood
 O'Toole, Laurence C., LeMars
 Ott, Martin D., Davenport
 Otto, Paul C., Fort Dodge
 ★Overton, Lewis M., Des Moines
 ★Owen, William E., Osage
 Owen, William R., Osage
 Pace, Arthur A., Toledo (L.M.)
 Padgham, John T., Grinnell
 Pace, Addison C., Des Moines (L.M.)
 Pagelsen, Otto H., Iowa Falls
 Pahlas, Henry M., Dubuque
 ★Paige, Ralph T., LaPorte City
 Painter, J. Carl, Dubuque
 ★Painter, Robert C., Dubuque
 Palmer, Carson W., Guttenberg
 ★Panzer, Edward J. C., Stanton
 ★Paragas, Modesto R., Creston
 ★Parish, John R., Grinnell
 Parish, Ora F., Grinnell (L.M.)
 Park, Elmer R., Sioux City
 ★Parke, John, Cedar Rapids
 Parker, Bernard B., Springfield, Illinois
 Parker, Edward S., Ida Grove (L.M.)
 Parker, James D., Fayette
 Parker, Robert L., Des Moines
 ★Parkin, George L., Iowa City
 Parks, Claude O., Iowa City
 Parry, Roy E., Scranton
 Parsons, Harry C., Grinnell
 Parsons, Irving U., Malvern
 Parsons, John C., Des Moines
 Parsons, Percival L., Traer
 ★Paschal, George A., Williams
 ★Pascoe, Paul L., Carroll
 ★Patterson, Alpheus W., Fonda
 Patterson, John N., Burlington (L.M.)
 ★Patterson, Roy A., Webster City
 Paul, John D., Anamosa
 Paul, William D., Iowa City
 Paulsen, Herbert B., Harris
 ★Paulus, Edward W., Iowa City
 ★Paulus, James W., Dubuque
 Payne, Rosewell H., Exira
 ★Pearlman, Leo R., Des Moines
 Pearson, George J., Burlington
 Peart, John C., Davenport
 Pease, Herbert, Alta Vista
 Peasley, Harold R., Des Moines
 Peck, Raymond E., Davenport
 ★Peck, Levin H., Lake City
 ★Peisen, Conan J., Des Moines
 Pelz, Werner P., Lakota
 Pence, James W., Columbus Junction
 ★Penn, Eugene C., West Des Moines
 Perkins, Franklin C., Hedrick
 Perkins, Rolla W., Sioux City
 ★Perkins, Rollin M., Davenport
 Perley, Arthur E., Waterloo
 Peschau, Waldo E., Cedar Rapids
 Petersen, Emil C., Atlantic
 ★Petersen, Millard T., Atlantic
 Petersen, Robert E., Iowa City
 ★Petersen, Vernon W., Iowa City
 Peterson, Evan A., Burlington
 Peterson, Frank R., Iowa City
 Peterson, John C., Jr., Hartley
 Peterson, Ray W., Clear Lake
 Petty, Wallace S., Lincoln, Nebraska
 ★Pfeiffer, Eric P., Des Moines
 Pfeiffer, Ernest, Hartley
 Pfeiffer, Harry E., Cedar Rapids
 Pfohl, Anthony C., Dubuque
 ★Phelps, Richard E. H., State Center
 Phillips, Albin B., Clear Lake (L.M.)
 ★Phillips, Allan B., Des Moines
 Phillips, Clarence P., Muscatine
 Phillips, Isaac H., Missouri Valley
 Phillips, Jesse H., Montezuma (L.M.)
 Phillips, Walter B., Montezuma
 Pickard, John C., Dubuque
 Piekenbrock, Frank J., Dubuque
 Piercy, Kenneth C., Ames
 Pierson, Lawrence E., Sioux City
 Pitluck, Harry L., Laurens
 ★Plankers, Arthur G., Dubuque
 Plass, Everett D., Iowa City
 Plummer, George A., Rochester, New York
 Poepsel, Frank L., West Point
 Pollock, Roscoe, Douds-Leandro
 Porstmann, Louis J., Davenport
 Porter, Charles E., Redfield
 Porter, Clarence M., Woodward
 ★Porter, Robert J., Des Moines
 Porter, S. Dale, Grinnell
 Posner, Edward R., Des Moines (L.M.)
 Powell, Burke, Albion (L.M.)
 ★Powell, Lester D., Des Moines
 ★Powell, Robert A., Farragut
 Powell, Velura E., Red Oak
 Powers, Henry R., Emmetsburg
 Powers, Ivan R., Waterloo
 Powers, Joseph C., Hampton
 Preece, Wade O., Waterloo
 Prentice, George L., Bloomfield
 Presnell, J. William, Scranton
 Presnell, William H., Charlotte
 ★Prewitt, Leland H., Ottumwa
 Price, Alfred S., Des Moines
 Priessman, Frank A., Keokuk
 ★Priestley, Joseph B., Des Moines
 Pringle, Jesse A., Barlev (L.M.)
 ★Proctor, Rothwell D., Cedar Rapids
 Prouty, James V., Cedar Rapids
 ★Ptacek, Joseph L., Webster City
 ★Pumphrey, Lora C., Keokuk
 ★Purdy, William O., Des Moines
 Putnam, Chester L., Des Moines
 ★Quinn, Francis P., Dubuque
 Quire, Frank E., Lynnvile
 ★Ralston, Furman P., Knoxville
 Rambo, Cyrus C., Creston
 Rambo, David T., Ottumwa
 Randall, John H., Iowa City
 ★Randall, William L., Hampton
 Rankin, Isom A., Iowa City
 ★Rankin, John R., Keokuk
 Rankin, William, Keokuk
 Ransom, Harry E., Des Moines
 ★Rarick, Ivan H., Sioux City
 Rasmussen, Carl C., Des Moines
 Rater, David L., Ottumwa
 ★Rathe, Herbert W., Waverly
 ★Rausch, Gerald R., Clarinda
 Ravitts, Joseph L., Montezuma
 Raw, Elmer J., Pierson
 Rawson, Elwin G., Anamosa
 ★Redmond, James J., Cedar Rapids
 Redmond, Thomas M., Monticello
 Reed, Andrew I., Estherville
 Reed, Guy P., Davis City (L.M.)
 Reed, Paul A., Iowa City
 Reed, Roe B., Clearfield
 Reeder, James E., Sioux City
 ★Reeder, James E., Jr., Sioux City
 ★Reiley, Richard E., Oskaloosa
 Reiley, William S., Red Oak (L.M.)
 Reimers, Robert S., Fort Madison
 Reinicke, Edward L., Dubuque (L.M.)
 Reinsch, Frank, Ashton
 Renee, William G., Iowa City
 Render, Norman D., Clarinda
 Rendleman, William H., Davenport
 Reuber, Roy N., Mason City
 Reuling, Frank H., Waterloo
 Reynolds, Albert C., Des Moines
 Rhoads, Earl O., Greenfield
 ★Rhombert, Edward B., Guttenberg
 Rice, Floyd W., Des Moines
 Richards, Frank O., Winterset
 Richardson, Leon F., Collins
 ★Richmond, Arthur C., Fort Madison
 Richmond, Frank R., Fort Madison
 ★Richmond, Paul C., New Hampton
 ★Richter, Harold J., Albion
 Ridenour, Joseph E., Waterloo
 ★Riegelman, Ralph H., Des Moines
 ★Rieniets, John H., Cedar Rapids
 Riess, Stephen, Cedar Rapids
 Riggert, Leonard O., Clinton
 Riggie, Frank P., Fort Madison
 Riley, John, Exira (L.M.)
 Rimel, George W., Bedford
 Ringena, Engelke J., Brooklyn
 ★Ringrose, Edward J., Iowa City
 Rinker, George E., Oto
 Risk, Howard, Oelwein (L.M.)
 ★Ristine, Leonard P., Mount Pleasant
 Ritter, John F., Maquoketa
 Rizzo, Frank, Sibley
 Robb, James B., Chariton
 Roberts, Charles R., Dysart
 Roberts, Francis L., Spirit Lake
 Roberts, Francis M., Knoxville
 Roberts, Justus B., Ottumwa
 Robertson, Andrew A., Council Bluffs
 ★Robertson, Treadwell A., West Liberty
 Robinson, Robert E., Waverly (L.M.)
 ★Robinson, Van C., Des Moines
 Rock, John D., Davenport
 Rockwell, Marydella, Clinton
 ★Rodawig, Donald F., Spirit Lake
 Roddy, Harold J., Mason City
 Rodemeyer, Frederick H., Sheffield
 Roder, Carl F., Dumont
 Rodgers, Lewis A., Oskaloosa (L.M.)
 Roe, Cullen B., Afton
 Rogers, Claude B., Earlville
 ★Rohlf, Edward L., Jr., Waterloo
 Rohner, Frank J., Iowa City (L.M.)
 Rohrbacker, William M., Iowa City
 Rohwer, Roland T., Sioux City
 ★Rofls, Floyd O., Parkersburg
 Rolfs, Fred A., Aplington
 Romine, John H., Webster City
 ★Rominger, Clark R., Waukon
 Rominger, Clark W., Waukon
 Roost, Frederick H., Sioux City
 Rose, Alvin A., Story City
 ★Rose, Joseph E., Grundy Center
 Roseberg, Bertil, Iowa City
 ★Rosebrook, Lee E., Ames
 Rosendorff, Charlotte, Bettendorf
 ★Rosenfeld, Robert T., Council Bluffs
 Ross, Arthur J., Jr., Perry
 ★Rost, Glenn S., Red Oak
 ★Rotkow, Maurice J., Des Moines
 Rowan, Charles J., Laguna Beach, California
 Rowat, Harry L., Des Moines
 Rowe, Frank N., Denison
 Rowley, William G., Sioux City
 Royal, Lester A., West Liberty
 Royal, Malcolm A., Des Moines
 Ruml, Wentzel, Cedar Rapids
 Rusk, Jesse E., Rake
 Russell, Edmund D., Fort Dodge
 Russell, Elwood P., Burlington
 Russell, John, Des Moines
 Russell, Ralph E., Waterloo
 Rust, Emery A., Webb
 Ruth, Verl A., Des Moines
 Ryan, Allen J., Harlan
 ★Ryan, Cyril J., Creston
 Ryan, Granville N., Des Moines (L.M.)
 ★Ryan, Martin J., Sioux City
 Saar, Jesse L., Donnellson
 ★Sage, Erwin C., Burlington
 Sals, Adolph L., Iowa City
 St. Onge, Joseph A., Sioux City
 Salisbury, Frederick S., Knoxville
 Sampson, Carl E., Creston
 Sampson, Frank E., Creston (L.M.)
 Sams, Joseph H., Clarion (L.M.)
 Samuelson, Carl A., Sheldon
 Sanders, George E., Des Moines
 Sanders, Matthew G., Fort Dodge
 Sanders, William E., Long Beach, California
 Sarff, Floyd G., Logan
 Sartor, Guido J., Mason City
 Sartor, Pierre, Titonka
 Sawtelle, William W., San Antonio, Texas
 Sawyer, Grace M., Woodward

- Sawyer, Prince E., Sioux City
 Saylor, Harley L., Des Moines (L.M.)
 Saylor, Herbert B., Des Moines
 Sayre, Ivan K., St. Charles
 Scales, Emmet T., Des Moines
 ★Scanlan, George C., DeWitt
 Scanlan, Maurice, DeWitt
 Scanlon, George H., Iowa City
 ★Scannell, Raymond C., Carroll
 Schadt, Frederick C., Williamsburg
 Schaefer, Paul H., Burlington
 ★Schaeferle, Lawrence G., Gladbrook
 Schafer, Leander H., DeWitt
 Schanche, Arthur N., Ames
 ★Scharle, Theodore, Dubuque
 Scheldrup, Eugene W., Iowa City
 Schenk, Irwin, Des Moines
 ★Schiff, Joseph, Anita
 Schilling, Nicholas, New Hampton (L.M.)
 ★Schlaser, Verne L., Des Moines
 Schmidt, Bernhard H., Davenport (L.M.)
 Schmidt, Generva, Des Moines
 Schmitz, Henry C., Des Moines
 Schnug, George E., Dows
 Schoon, Harold W., Sibley
 ★Schrader, Merlin A., Webster City
 Schreiner, Charles A., Ollie
 Schroeder, Adrian J., Marshalltown
 Schroeder, Frank N., Ryan
 Schroeder, Leslie V., Walcott
 ★Schroeder, Mellgren C., Pella
 Schrup, Joseph H., Dubuque (L.M.)
 ★Schueller, Charles J., Dubuque
 Schultz, Albert A., Fort Dodge
 Schultz, Ivan T., Humboldt
 Schultz, Nelle E. T., Humboldt
 ★Schwartz, John W., Sioux City
 Scott, Philip A., Spirit Lake
 Scott, Sophie H., Des Moines (L.M.)
 Scott, Walter E., Adel (L.M.)
 ★Seaman, Charles L., Mount Ayr
 ★Sedlacek, Leo B., Cedar Rapids
 ★Seibert, Cecil W., Waterloo
 Seidler, William A., Jamaica (L.M.)
 Seiler, Raymond A., Blairtown
 Sellards, Joseph W., Clarinda
 Sells, Benjamin B., Independence
 Sells, Frank W., Osceola
 ★Sells, Robert L., Jr., Iowa City
 ★Selman, Ralph J., Ottumwa
 Selo, Rudolph A., Hazleton
 ★Senfeld, Sidney, Belle Plaine
 Senska, Frank R., Brandon
 Senty, Elmer G., Davenport
 Severson, George J., Slater
 Shafer, Arthur W., Davenport
 Shafer, Lee E., Davenport
 ★Shane, Robert S., Pilot Mound
 Shannon, Edwin R., Waterloo
 ★Sharpe, Donald C., Dubuque
 Shaw, Albert E., Des Moines
 ★Shaw, David F., Britt
 ★Shaw, Ernest E., Indianola
 Shaw, Mathew M., Madrid
 ★Shaw, Robert E., Waverly
 Shelton, Charles D., Bloomfield
 Sherlock, John H., Rock Rapids
 Sherman, Richard C., Farley
 Shine, Dan W., Oelwein
 ★Shonka, Thomas E., Malvern
 Shope, Charles D., Storm Lake
 ★Shorey, Joseph R., Davenport
 ★Shrader, John C., Fort Dodge
 Shulkin, Samuel H., Sioux City
 Shumate, C. Frank, Miles
 ★Shurts, John J., Oskaloosa
 Siberts, Frank L., Hampton
 Sibley, Edward H., Sioux City
 Sigworth, Fred B., Anamosa
 Simmons, Ralph R., Des Moines
 Simons, James D., Leon
 Simonsen, Marie N., Sioux City
 Singer, Siegmund F., Ottumwa
 ★Sinn, Irvin J., Williamsburg
 Sinning, Augustus, Iowa City
 ★Sinning, John E., Melbourne
 Skallerup, Walter M., Walker
 ★Skellley, Paul B., Jr., Maquoketa
 ★Skultety, James A., Des Moines
 ★Smazal, Stanley F., Davenport
 ★Smead, Howard H., Des Moines
 Smead, Leslie L., Newton
 Smiley, Ralph E., Mason City
 Smith, Arthur F., Manning
 ★Smith, Carl W., Dubuque
 Smith, Cecil R., Onslow
 Smith, Channing G., Granger
 ★Smith, Elmer M., State Center
 ★Smith Eugene E., Waterloo
 Smith, Ferdinand J. E., Milford (L.M.)
 Smith, Franklin C., Mount Ayr (L.M.)
 Smith, Fred M., Iowa City
 ★Smith, Harold F., Iowa City
 Smith, Harry P., New York, New York
 ★Smith, Herman J., Des Moines
 Smith, Homer A., Correctionville
 Smith, Howard W., Woodward
 Smith, Jason N., Iowa City
 Smith, John E., Clarence
 Smith, Lawrence D., Des Moines
 Smith, Rex I., Waterloo
 ★Smith, Robert A., Albion
 Smith, Robert T., Granger
 ★Smith, Roland T., Des Moines
 ★Smith, Rupard G., Cedar Falls
 Smith, Sidney D., Waterloo
 Smouse, William O., Des Moines (L.M.)
 ★Smrha, James A., Cedar Rapids
 Smythe, Arnold M., Des Moines
 ★Snodgrass, Ralph W., Des Moines
 ★Snyder, Dean C., DeWitt
 ★Snyder, Glen E., Grimes
 Snyder, John A., Roland
 Snyder, Raleigh R., Des Moines
 Soe, Peder, Kimballton
 ★Sohm, Herbert A., Des Moines
 Sokol, John M., Spencer
 Sollis, Delmar B., Chariton
 ★Somers, Pearl E., Grinnell (L.M.)
 Sones, Clement A., Des Moines
 ★Sorensen, Elmer M., Red Oak
 ★Sorensen, Regnar M., Des Moines
 ★Sorensen, Aral C., Davenport
 Sorensen, Kermit R., Sabula
 Soucek, Adolph, Mount Pleasant
 Spain, Robert T., Conrad
 Sparks, Francis R., Waverly (L.M.)
 Spaulding, Homer L., Ankeny (L.M.)
 Spear, William M., Oakdale
 ★Speidel, Glenn P., Oakdale
 ★Speigel, Irving J., Clinton
 Spellman, Martin T., Cedar Rapids
 ★Sperow, Wendell B., Nevada
 Spielhagen, Guenther F., Iowa City
 Spilman, Harold A., Ottumwa
 Spinharney, Lester J., Cherokee
 ★Springer, Eugene W., Iowa City
 ★Springer, Floyd A., Des Moines
 Sproul, William M., Des Moines
 Stabo, Trond N., Decorah (L.M.)
 ★Stadler, Harold E., Iowa City
 Stafford, James F., Lovilia
 ★Stafford, Richard H., Sumner (L.M.)
 Stageman, John F., Council Bluffs
 ★Staggs, William A., Iowa City
 Stallford, John H., Sac City (L.M.)
 Stam, Nicholas C., Mason City
 Stampfli, Wendell P., Iowa City
 ★Standefor, Joe M., Tama
 Stansbury, John E., Cedar Rapids
 ★Stansbury, J. Robert, Cedar Rapids
 Stark, Callistus H., Cedar Rapids
 Starr, Charles F., Mason City
 Starry, Allen C., Sioux City
 ★Stauch, Martin O., Whiting
 Staudt, Alfred J., Waterloo
 ★Stearns, A. Bryce, Des Moines
 Steelsmith, Frank R., Des Moines
 ★Steenrod, Emerson J., Iowa Falls
 ★Steffens, Lincoln F., Dubuque
 ★Steffey, Fred L., Keokuk
 ★Stegman, Jacob J., Marshalltown
 Steindler, Arthur, Iowa City
 Stephen, Paul, Manchester
 Stephen, Raymond J., Cedar Rapids
 ★Stephens, Robert L., Iowa City
 Stepp, James K., Manchester
 Sternagel, Fred, West Des Moines
 Sternberg, Walter A., Mount Pleasant (L.M.)
 ★Sternhill, Irving, Mason City
 ★Sternhill, Isaac, Council Bluffs
 Stevenson, Eber F., Waterloo (L.M.)
 ★Stevenson, William W., Rockwell City
 Stewart, Robert A., Independence
 Stewart, William L., Mediapolis
 Stinson, Alice C., Estherville
 Stoakes, Charles S., Lime Springs
 Stober, Raymond W., Charles City
 Stodden, Frank J., Sioux City
 Stoecks, William A., Davenport
 Stolley, Jordan G., Moline
 ★Straub, Joseph J., Dubuque
 Strawn, John T., Des Moines
 Stribbley, Harry A., Dubuque
 Stroy, Herbert E., Osceola
 ★Struble, Gilbert C., Ottumwa
 Stuart, Percy E., Nashua
 Stumme, Ernest H., Denver
 ★Stump, Robert B., Iowa City
 Stutsman, Eli E., Washington
 ★Stutsman, Robert E., Washington
 Suchomel, Thomas F., Cedar Rapids
 Sugg, Herbert R., Clinton
 ★Sulek, Arthur E., Cedar Rapids
 Sullivan, Lawrence F., Donahue
 Sult, William F., Gilman
 ★Sulzbach, John F., Oelwein
 ★Sunderbruch, John H., Davenport
 ★Svendsen, Reinert N., Decorah
 Swab, Charles C., Cedar Rapids
 Swallum, James A., Storm Lake
 Swallum, Troy W., Spencer
 Swanson, John E., Sioux City
 Swanson, Leslie W., Mason City
 ★Swift, Charles H., Jr., Marcus
 ★Swift, Frederick J., Jr., Maquoketa
 ★Swift Frederick J., Maquoketa
 Swinney, Roy G., Richland
 Sybenga, Jacob J., Pella
 Synhorst, John B., Des Moines
 ★Sywassink, George A., Muscatine
 Tait, John H., Des Moines
 Talley, Louis F., Marshalltown
 ★Tamsiea, Francis X., Missouri Valley
 ★Tamsiea, John L., Missouri Valley
 ★Tandy, Roy W., Morning Sun
 Tapper, George W., Monona
 Taylor, Charles I., Pomeroy
 Taylor, Edward D., Davenport (L.M.)
 ★Taylor, Ingram C., Fairfield
 Taylor, Lawrence A., Ottumwa
 Taylor, Maude, Ottumwa
 Taylor, Robert S., Davenport
 Teufel, John C., Davenport
 Tharp, Herbert M., Monroe
 ★Thatcher, Wilbur C., Fort Dodge
 Thayer, Wilbur F., Ocheydine
 Thein, Garfield M., Oelwein
 Theisen, Roy I., Dubuque
 Thielen, Edward W., Waterloo
 Thielen, John B., Ponda
 Thielen, Michael H., Grundy Center
 ★Thomas, Clarence I., Guthrie Center (L.M.)
 ★Thomas, Clifford W., Forest City
 Thomas, Clyde E., Keystone
 Thomas, Colin G., Monticello
 Thomas, Louis A., Red Oak
 Thomas, William H., McGregor
 ★Thompson, Elvin D., Webster City
 Thompson, Gilbert N., Jesup
 Thompson, Harry F., Forest City (L.M.)
 Thompson, Howard E., Dubuque
 Thompson, James R., Waterloo
 Thompson, Kenneth L., Oakland
 Thompson, Virginia D., Des Moines
 Thompson, William L., Bayard (L.M.)
 Thoms, Adolph N., Cedar Falls
 Thomsen, Thomas F., Red Oak
 ★Thornburn, Oral L., Ames
 Thornburn, William V., Guthrie Center (L.M.)
 Thornell, Joseph B., Council Bluffs
 Thornton, F. Eberle, Iowa City
 Thornton, John W., Lansing
 Thornton, Thomas F., Waterloo
 Thorson, John A., Dubuque
 ★Throckmorton, J. Fred, Des Moines
 Throckmorton, Jeanette Dean, Des Moines (L.M.)
 Throckmorton, Robert F., Des Moines (L.M.)
 Throckmorton, Scott L., Chariton
 Throckmorton, Tom B., Des Moines
 Throckmorton, Tom D., Des Moines
 Tice, Claude B., Mason City
 ★Tice, George I., Mason City
 ★Tice, W. Arnold, Mason City
 Tidrick, Robert T., Iowa City
 Tierney, Edmund J., Sioux City
 Tilton, John J., Maquoketa
 ★Tindall, Robert N., Coon Rapids
 Tinley, Mary L., Council Bluffs (L.M.)
 Tinley, Mathew A., Council Bluffs
 ★Tinley, Robert E., Council Bluffs
 Tinsman, Eugene, Orient
 ★Titus, Elton L., Iowa City
 ★Todd, Donald W., Guthrie Center
 ★Todd, V. Stanley, Eldora
 ★Tolliver, Hillard A., Charles City
 Tombaugh, Frank M., Burlington (L.M.)
 Tompkins, Erle D., Clarion
 ★Toubes, Abraham A., Des Moines
 ★Tracy, John S., Sioux City
 Traister, John E., Eddyville
 ★Trapasso, Tony J., Iowa City
 Trey, Bernard L., Marshalltown
 ★Treyner, Jack V., Council Bluffs
 Trimbo, Joseph H., Chelsea
 Tripp, Leroy R., Sioux City
 ★Trueblood, Clare A., Indianola
 ★Trunnell, Thomas L., Waterloo
 ★Trussell, Ray E., Iowa City
 Turner, George E., West Des Moines
 ★Turner, Howard V., Des Moines
 Turner, Lee R., Renwick
 Turner, William R., Fort Dodge
 Tyler, Charles W., Polk City (L.M.)
 Tyrell, Joseph W., Des Moines (L.M.)
 Unger, David, Des Moines
 Updegraff, Charles L., Boone

- Valiquette, Frank G., Sioux City
★Van Besien, George J., Decorah
Van Camp, Thomas H., Breda
Vander Meulen, Herman C., Pella
Vander Stoep, Harry L., LeMars
Vander Veer, Frank L., Janesville
Van Duzer, William R., Casey
Van Epps, Clarence E., Iowa City
★Van Epps, Eugene F., Clinton
Vangness, Ingmar C., Sioux City
★Van Hale, Laurence A., Des Moines
Van Metre, Paul W., Rockwell City
Van Ness, Charles S., Peterson
★Van Patten, Ernest M., Fort Dodge
Van Tiger, William H., Eldora
★Van Werden, Benjamin D., Keokuk
Van Winkle, Howard L., Cedar Rapids
Van Zanten, Will, Brighton
★Vaubel, Ellis K., Des Moines
Veldhouse, Richard H., Cedar Rapids
Veldhof, Metodi, Dubuque
★Veltman, John F., Winterset
Vernon, Fred G., Jewell
Vest, William M., Iowa City
Vesterborg, Peder H., Forest City (L.M.)
Victorine, Edward M., Cedar Rapids
Vineyard, Thomas L., Ottumwa
Vinson, Harry W., Ottumwa
★Voelker, Chris A., Jr., Iowa City
Voigt, Ernest J., Burlington
Voigt, Frank O. W., Oskaloosa
Vollmer, Karl, Davenport (L.M.)
von Lackum, Herman J., Dysart (L.M.)
von Lackum, John K., Cedar Rapids
Vorpahl, Rudolph A., Cedar Rapids
Voss, Otto R., Davenport
Waddell, Jesse C., Paton
★Waggoner, Charles V., Clinton
★Wagner, Eugene C., Des Moines
Wagner, James A., Primghar
Wahrer, Frederick L., Marshalltown
Wailles, John W., Davis City (L.M.)
★Wainwright, Maxwell T., Mapleton
Wakeman, Allie H., Fort Dodge
Walker, Charles C., Des Moines
Walker, Harry L., Cedar Rapids
Walker, Herbert P., Clarion
Walker, John M., Dubuque
★Walker, Thomas G., Riceville
Walker, Thomas S., Riceville (L.M.)
★Wall, David, Ames
Wallace, Evelyn G., Iowa City
Wallace, Robert M., Algona
Wallahan, Jay H., Corning (L.M.)
Walliker, Wilbur M., Clinton
★Walsh, Eugene L., Hawkeye
★Walsh, William E., Hawkeye
Walston, Edwin B., Des Moines (L.M.)
★Walton, Seth G., Hampton
Walvoord, William W., Dunlap
Wanamaker, Ambrose E., Hamburg (L.M.)
★Wanamaker, Ambrose R., Hamburg
Ward, Dell W., Oelwein
★Ward, Donovan F., Dubuque
Ward, Loraine W., Independence
★Ward, Robert H., Iowa City
Ward, Thomas L., Arnolds Park
Ware, Matt, West Branch
★Ware, Stephen C., Kalona
Warner, Emory D., Iowa City
Warner, Ervin W., Clarion
Warren, Elbert T., Stuart
Waterbury, Charles A., Jr., Waterloo
Waterbury, Charles A., Waterloo
Watkin, Clifford R., Sioux City
Watson, Elbert J., Diagonal (L.M.)
Watters, George H., Des Moines
Watters, Phil G., Des Moines
Watts, A. Fred, Seattle, Washington
Watts, Clyde F., Marengo
★Weatherly, Howard E., Iowa City
Weaver, Kenneth H., Union
Webb, Daniel R., Jr., Cedar Rapids
Webb, Walter W., Iowa City
Webb, Waterman T., Fairfield
Weber, Frank N., Walnut
Weber, Leslie E., Wapello
Weber, William W., Pomeroy
Wedel, James R., Keokuk
Weems, Nev E., Paulina
Wehman, Edward J., Burlington
Weih, Elmer P., Clinton
★Weinberg, Harry B., Davenport
Weingart, Julius S., Des Moines
Weir, Edward C., Council Bluffs
Weir, Matt B., Griswold
Weis, Howard A., Davenport
Wells, Benjamin S., Marshalltown
Wells, Fred L., Des Moines (L.M.)
★Wells, Lloyd L., Clinton
★Wells, Rodney C., Marshalltown
Wendell, Margaret R., Ames
Wentworth, Laydon S., Marble Rock
Wentzien, Albert J., Tama
Werner, Carl A. A., Des Moines
Werner, Harold T., Fort Madison
Werts, Charles M., Des Moines (L.M.)
★West, Alroy G., Council Bluffs
West, George H., Armstrong
West, Harry D., Des Moines
West, Walter E., Centerville
West, William W., Clarinda
Westenberger, Joseph C., St. Ansgar
★Westly, Gabriel S., Manly
Westly, Soren S., Manly
Weston, B. Raymond, Mason City
Weston, Robert A., Des Moines
★Wetrich, Max F., Manilla
★Weyer, Joseph J., Lohrville
Whitaker, Ben T., Boone
White, Harold E., Knoxville
White, Paul A., Davenport
White, Seward, Olin
Whitehill, Nelson M., Boone
★Whitehouse, William N., Ottumwa
Whitley, Ralph L., Osage (L.M.)
★Whitmer, Lysle H., Wilton Junction
Whitmire, James E., Sumner
Whitmire, William L., Sumner (L.M.)
★Wicks, Ralph L., Winterset
Wilcox, Delano, Malcom (L.M.)
Wilcox, Edgar B., Oskaloosa
Wilder, Agnes R., Atlantic
Wiley, Ralph E., Fontanelle
★Wilke, Frank A., Woodward
Wilkinson, Levi J., Laurel
★Willett, Wendell M., Des Moines
★Willett, Wilton J., Carbon
Williams, Benjamin G., Oskaloosa
Williams, Edward B., Montezuma (L.M.)
Williams, Edward M., Oskaloosa
Williams, Edward M., Norway
Williams, Frank L., Wadsworth, Kansas
Williams, Frank S., Villisca
Williams, Nathan B., Belle Plaine
★Williams, Robert L., Lakota
Wilson, Frank D., Sioux City
Wilson, Fred C., Colesburg
Wilson, Fredric L., Sioux City
Winder, Clifford D., Waterloo
Winnett, Edwin B., Des Moines
Winter, Louis C., Wilton Junction
Wirsig, Arnold O., Shenandoah
★Wirtz, Dwight C., Des Moines
Wise, James H., Cherokee
★Witte, Herbert J., Marathon
Wolcott, Ruth F., Spirit Lake
Wolf, Henry H., Elgin
Wolfe, Joseph H., Iowa City
★Wolfe, Otis D., Marshalltown
Wolfe, Otis R., Marshalltown
★Wolfe, Russell M., Marshalltown
Wolfe, Wilson C., Ottumwa
★Wolfson, Harold, Kingsley
★Wolpert, Paul L., Onawa
Wolverton, Benjamin F., Cedar Rapids
Wood, John R., Wadena
Wood, Rollin W., Newton
Woodard, Floyd O., Des Moines
Woodbridge, James W., Emmetsburg (L.M.)
Woodhouse, George R., Vinton
★Woodhouse, Keith W., Cedar Rapids
Woods, Andrew H., Iowa City
Woods, Arthur D., State Center
Woods, Herbert C., Tama
Woods, Hugh B., Des Moines
★Woodward, Edward R., Mason City
Woodward, Lee R., Mason City
Worley, Charles L., Ottumwa
Wray, Clarence M., Iowa Falls
★Wray, Robert M., Cedar Rapids
Wright, John R., Las Vegas, New Mexico
Wright, Thomas D., Newton
Wright, Walter N., Rose Hill
Wubben, Arthur C., Rock Rapids
★Wurl, Otto A., Council Bluffs
Wurtzer, Ezra L., Clear Lake
★Wyatt, Merlin R., Manning
Wyland, Asa O., Underwood (L.M.)
Yancey, Charles C., Sioux City
Yavorsky, George W., Belle Plaine (L.M.)
★Yavorsky, William D., Cedar Rapids
Yocum, Albert L., Chariton
York, Nathan A., Lisbon
Yost, Charles G., Center Point
Young, Clifford W., Onawa
Young, Ernest R., Dubuque
Young, Henry C., Bloomfield (L.M.)
Young, Howard O., Marion
Young, James W., Des Moines
Young, Richard A., Des Moines
Zaeske, Dora E. K., Charter Oak
Zaeske, Edward V., Charter Oak
★Zager, Lewis L., Oskaloosa
★Ziffren, Sidney E., Iowa City
Zimmerer, Edmund G., Des Moines
Zinn, Edgar N., Fort Dodge
Zoller, Sherwood B., Fredericksburg
Zuercher, Arlo R., Cedar Rapids
★Zukerman, Cecil M., Bettendorf

★Military Service

*Deceased

(L.M.) Life Member

Roster of Iowa Physicians in Military Service

As of June 23, 1945

Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) Lt. Col., A.U.S.
Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.) Capt., A.U.S.

Adams County

Bain, C. L., Corning (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Willett, W. J., Carbon (APO 230, New York, N. Y.) Capt., A.U.S.

Allamakee County

Hogan, P. W., Waukon
Ivens, M. H., Waukon (Miami Beach, Fla.) Capt., A.U.S.
Kiesau, M. F., Postville (APO 513, New York, N. Y.) Major, A.U.S.
Rominger, C. R., Waukon (Camp Claiborne, La.) A.U.S.

Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.) Major, U.S.P.H.S.
Edwards, R. R., Centerville (APO 887 New York, N. Y.) Capt., A.U.S.
Huston, M. D., Centerville (Santa Fe, N. Mex.) Capt., A.U.S.

Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) Major, A.U.S.

Benton County

Koontz, L. W., Vinton (APO 7, San Francisco, Cal.) Capt., A.U.S.
Senfeld, Sidney, Belle Plaine

Black Hawk County

Bickley, D. W., Waterloo (APO New York, N. Y.) Capt., A.U.S.
Bickley, J. W., Waterloo (APO 956, San Francisco, Cal.) Capt., A.U.S.
Butts, J. H., Waterloo (Galveston, Texas) Comdr., U.S.N.R.
Cooper, C. N., Waterloo (Newport, R. I.) Lt. Comdr., U.S.N.R.
Ericsson, M. G., Cedar Falls (Camp Berkeley, Tex.) Capt., A.U.S.
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) Capt., A.U.S.
Henderson, L. J., Cedar Falls (APO 782, New York, N. Y.) Major, A.U.S.
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) Capt., A.U.S.
Ludwick, A. L., Waterloo (Abilene, Texas) Major, A.U.S.
Marquis, F. M., Waterloo (APO 513, New York, N. Y.) Capt., A.U.S.
O'Keefe, P. T., Waterloo (APO 79, New York, N. Y.) Capt., A.U.S.
Paige, R. T., LaPorte City (Banana River, Fla.) Comdr., U.S.N.R.
Rohlf, E. L., Jr., Waterloo (APO 230, New York, N. Y.) Major, A.U.S.
Seibert, C. W., Waterloo (Colorado Springs, Colo.) Major, A.U.S.
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) Major, A.U.S.
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) Major, A.U.S.
Trunnell, T. L., Waterloo (Parris Island, S. Car.) Lt. U.S.N.R.

Boone County

Brewster, E. S., Boone (APO 446, New York, N. Y.) Major, A.U.S.
Healy, M. J., Boone (Fort Sill, Okla.) Capt., A.U.S.
Shane, R. S., Pilot Mound (Des Moines, Ia.) Lt. Col., A.U.S.

Bremser County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Rathe, H. W., Waverly (APO 209, New York, N. Y.) Lt. Col., A.U.S.
Shaw, R. E., Waverly (Long Beach, Cal.) 1st Lt., A.U.S.

Buchanan County

Barton, J. C., Independence (APO 314, New York, N. Y.) Lt. Col., A.U.S.
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Leehey, P. J., Independence (APO 244, San Francisco, Cal.) Capt., A.U.S.
Loeck, J. F., Aurora (APO 887, New York, N. Y.) Capt., A.U.S.

Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) Capt., A.U.S.
Brecher, P. W., Storm Lake (Camp Adair, Ore.) Lt. Col., A.U.S.
Hansen, R. R., Storm Lake (Farragut, Idaho) Lt., U.S.N.R.
Mailliard, R. E., Storm Lake (APO 254, New York, N. Y.) Lt. Col., A.U.S.
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) Capt., A.U.S.
Witte, H. J., Marathon (APO 350, New York, N. Y.) Major, A.U.S.

Butler County

Andersen, B. V., Greene (Pensacola, Fla.) Lt., U.S.N.R.
James, R. A., Allison (Mare Island, Cal.) 1st Lt., A.U.S.
Rolf, F. O., Parkersburg (Springfield, Mo.) 1st Lt., A.U.S.

Calhoun County

Grinley, A. V., Rockwell City (APO 350, New York, N. Y.) Capt., A.U.S.
Hobart, F. W., Lake City (APO 562, New York, N. Y.) Capt., A.U.S.

McVay, M. J., Lake City (Waco, Texas) Capt., A.U.S.
Peck, L. H., Lake City (Camp Carson, Colo.) Capt., A.U.S.
Stevenson, W. W., Rockwell City (Seattle, Wash.) Lt. Comdr., U.S.N.R.
Weyer, J. J., Lohrville (APO 465, New York, N. Y.) Capt., A.U.S.

Carroll County

Anneberg, A. R., Carroll (APO 70, San Francisco, Cal.) Capt., A.U.S.
Anneberg, W. A., Carroll (APO 367, New York, N. Y.) Capt., A.U.S.
Cochran, J. L., Carroll (Gulfport, Miss.) Lt., U.S.N.R.
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Freedland, Maurice, Coon Rapids
Morrison, J. R., Carroll (APO New York) Major, A.U.S.
Morrison, R. B., Carroll (APO 557, New York, N. Y.) Capt., A.U.S.
Pascoe, P. L., Carroll (Bowman Field, Ky.) Capt., A.U.S.
Scannell, R. C., Carroll (Denver, Colo.) Capt., A.U.S.
Tindall, R. N., Coon Rapids (Camp Grant, Ill.) Major, A.U.S.
Wyatt, M. R., Manning (Stuttgart, Ark.) Capt., A.U.S.

Cass County

Egbert, D. S., Atlantic (APO 218, New York, N. Y.) Major, A.U.S.
Ergenbright, W. V., Atlantic (APO 331, San Francisco, Cal.) Capt., A.U.S.
Needles, R. M., Atlantic (APO 131, New York, N. Y.) Capt., A.U.S.
Peterson, M. T., Atlantic (Charleston, S. Car.) Capt., A.U.S.
Schiff, Joseph, Anita (New York, N. Y.) 1st Lt., A.U.S.

Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.) Lt., U.S.N.R.
Mosher, M. L., West Branch (APO 560, New York, N. Y.) Capt., A.U.S.
O'Neal, H. E., Tipton (Minneapolis, Minn.) Lt. Col., A.U.S.

Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.) Major, A.U.S.
Egloff, W. C., Mason City (APO 17130, New York, N. Y.) Capt., A.U.S.
Fitzpatrick, M. R., Mason City (Portland, Ore.) Capt., A.U.S.
Flickinger, R. R., Mason City (Memphis, Tenn.) Capt., A.U.S.
Hale, A. E., Dougherty (Atlanta, Ga.) Capt., A.U.S.
Harris, R. H., Mason City (Dyersburg, Tenn.) Capt., A.U.S.
Harrison, G. E., Mason City Col., A.U.S.
Houlahan, J. E., Mason City (APO 835, New Orleans, La.) Capt., A.U.S.
Lannon, J. W., Clear Lake (APO 230, New York, N. Y.) Capt., A.U.S.
Long, D. L., Mason City (APO 520, New York, N. Y.) Capt., A.U.S.
Morgan, P. W., Mason City (APO 89, New York, N. Y.) Capt., A.U.S.
Mullen, L. M., Mason City (APO 252, New York, N. Y.) Capt., A.U.S.
Sternhill, Irving, Mason City (Ayer, Mass.) Capt., A.U.S.
Tice, G. I., Mason City (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
Tice, W. A., Mason City (Ft. Eustis, Va.) Lt. (jg), U.S.N.R.
Woodward, E. R., Mason City (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.

Cherokee County

Bullock, G. D., Washta (APO 17583, New York, N. Y.) Capt., A.U.S.
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) Major, A.U.S.
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) Capt., A.U.S.

Chickasaw County

Caulfield, J. D., New Hampton (APO 178, New York, N. Y.) Major, A.U.S.
Murphey, A. L., Fredericksburg (Ft. Leavenworth, Kan.) Capt., A.U.S.
O'Connor, E. C., New Hampton (Redmond, Ore.) Capt., A.U.S.
Richmond, P. C., New Hampton (APO 88, New York, N. Y.) Major, A.U.S.

Clarke County

Armitage, G. I., Murray (APO 629, New York, N. Y.) Capt., A.U.S.

Clay County

Edington, F. D., Spencer (APO 649, New York, N. Y.) Col., A.U.S.
Jones, C. C., Spencer (Farragut, Idaho) Lt., U.S.N.R.
King, D. H., Spencer (Peterson Field, Colo.) Capt., A.U.S.

Clayton County

Giesne, O. G., Monona (Knoxville, Iowa) Capt., A.U.S.
Rhomberg, E. B., Guttenberg (APO 584, New York, N. Y.) Capt., A.U.S.

Clinton County

Amesbury, H. A., Clinton (Vancouver, Wash.) Major, A.U.S.
Burke, J. C., Clinton (Great Bend, Kan.) A.U.S.
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) Capt., A.U.S.

Hill, D. E., Clinton (APO 9787, New York, N. Y.)...Capt., A.U.S.
 King, R. C., Clinton (Clinton, Iowa).....Capt., A.U.S.
 Lenaghan, R. T., Clinton (Olathe, Kans.)...Lt. Comdr., U.S.N.R.
 Norment, J. E., Clinton (San Bruno, Cal.)...Comdr., U.S.N.R.
 O'Donnell, J. E., Clinton (San Francisco, Cal.)...Lt. U.S.N.R.
 Riedesel, E. V., Wheatland (Fort Douglas, Utah)
 Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.)...Capt., A.U.S.
 Snyder, D. C., De Witt (APO 520, New York, N. Y.)...Capt., A.U.S.
 Speigel, I. J., Clinton (Galesburg, Ill.).....Capt., A.U.S.
 Van Epps, E. F., Clinton (APO 9921, New York,
 N. Y.).....Capt., A.U.S.
 Waggoner, C. V., Clinton (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Wells, L. L., Clinton (APO 562, New York, N. Y.)...Capt., A.U.S.

Crawford County

Fee, C. H., Denison (APO 696, New York, N. Y.)...Major, A.U.S.
 Grau, A. H., Denison, (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Maire, E. J., Vail (APO 18085, New York, N. Y.)...Capt., A.U.S.
 Wetrich, M. F., Manilla (APO 986, Seattle, Wash.)...Capt., A.U.S.

Dallas-Guthrie Counties

Butterfield, E. T., Dallas Center (Palm Springs,
 Cal.).....1st Lt., A.U.S.
 Byrnes, A. W., Guthrie Center (Fort Custer, Mich.)...Major, A.U.S.
 Flair, C. S., Adel (Fleet PO, San Francisco, Cal.)...Lt. U.S.N.R.
 Margolin, J. M., Perry (APO 5816, New York,
 N. Y.).....Capt., A.U.S.
 McGilvra, R. L., Guthrie Center (Bethesda, Md.)...Lt., U.S.N.R.
 Mullmann, A. J., Adel (APO 565, San Fran-
 cisco, Cal.).....Capt., A.U.S.
 Nicoll, C. A., Panora (APO 339, New York, N. Y.)...Major, A.U.S.
 Osborn, C. R., Dexter (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Todd, D. W., Guthrie Center (APO 2, New York,
 N. Y.).....Capt., A.U.S.
 Wilke, F. A., Woodward.....Capt., A.U.S.

Davis County

Fenton, C. D., Bloomfield (APO 5253, New York,
 N. Y.).....Capt., A.U.S.
 Gilfillan, G. W., Bloomfield (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Decatur County

Gamet, E. E., Lamoni (APO New York, N. Y.)...Major, A.U.S.

Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York,
 N. Y.).....Capt., A.U.S.
 Clark, R. E., Manchester (APO 419, New York, N. Y.)
Capt., A.U.S.

Des Moines County

Eigenfeld, M. L., Burlington (Cleveland, Ohio)....1st Lt., A.U.S.
 Heitzman, P. O., Burlington (Fort Lewis, Wash.)...Capt., A.U.S.
 Jenkins, G. D., Burlington (West Point, N. Y.)...Lt. Col., A.U.S.
 Lohmann, C. J., Burlington (APO 1055, San Fran-
 cisco, Cal.).....Lt. Col., A.U.S.
 McKitterick, J. C., Burlington (Hamilton,
 R. I.).....Comdr., U.S.N.R.
 Moerke, R. F., Burlington (APO 565, San Francisco,
 Cal.).....Capt., A.U.S.
 Sage, E. C., Burlington (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Dickinson County

Buchanan, J. J., Milford (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Henning, G. G., Milford (San Antonio, Texas)....Major, A.U.S.
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.)...Capt., A.U.S.
 Rodawig, D. F., Spirit Lake (Topeka, Kan.)...Major, A.U.S.

Dubuque County

Anderson, E. E., Dubuque (Bradley Field, Conn.)...Capt., A.U.S.
 Conzett, D. C., Dubuque (APO 887, New York,
 N. Y.).....Lt. Col., A.U.S.
 Cunningham, J. C., Dubuque (Fairfield, Ohio)....Capt., A.U.S.
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.)
Major, A.U.S.
 Entringer, A. J., Dubuque (APO 41, San Francisco,
 Cal.).....Capt., A.U.S.
 Hall, C. B., Dubuque (Indiantown Gap, Pa.).....Capt., A.U.S.
 Knoll, A. H., Dubuque (San Francisco, Cal.)...Major, A.U.S.
 Langford, W. R., Epworth (Miami Beach, Fla.)...Capt., A.U.S.
 Lavery, H. B., Dubuque (Washington, D. C.)...Lt. Col., A.U.S.
 Leik, D. W., Dubuque (Wichita Falls, Tex.).....Capt., A.U.S.
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.)...Capt., A.U.S.
 Olson, P. F., Dubuque (San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Painter, R. C., Dubuque (Salt Lake City, Utah)....Lt., U.S.N.R.
 Paulus, J. W., Dubuque (APO 115, New York,
 N. Y.).....Capt., A.U.S.
 Plankers, A. G., Dubuque (APO 464 New York,
 N. Y.).....Major, A.U.S.
 Quinn, F. P., Dubuque (Brooklyn N. Y.)...Major, A.U.S.
 Scharle, Theodore, Dubuque (APO 17570, New York,
 N. Y.).....Capt., A.U.S.
 Schueller, C. J., Dubuque (APO 384, New York,
 N. Y.).....1st Lt., A.U.S.
 Sharpe, D. C., Dubuque (APO 562, New York,
 N. Y.).....Major, A.U.S.
 Smith, C. W., Dubuque (Shoemaker, Cal.).....Lt., U.S.N.R.
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.)...Lt. Col., A.U.S.
 Straub, J. J., Dubuque (Bethesda, Md.)...Lt. Comdr., U.S.N.R.
 Ward, D. F., Dubuque (Great Lakes, Ill.)...Lt. Comdr., U.S.N.R.

Emmet County

Clark, J. P., Estherville (APO New York, N. Y.)...Major, A.U.S.
 Collins, L. E., Estherville (APO 247, San Fran-
 cisco, Cal.).....1st Lt., A.U.S.
 Miller, O. H., Estherville (Seattle, Wash.)...Lt. Comdr., U.S.N.R.

Fayette County

Gallagher, J. P., Oelwein (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Henderson, W. B., Oelwein (St. Louis, Mo.)...Lt. Col., A.U.S.
 Sulzbach, J. F., Oelwein
 Walsh, E. W., Hawkeye (Huntington, W. Va.)...A.U.S.
 Walsh, W. E., Hawkeye (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Floyd County

Baltzell, W. C., Charles City (APO 2, New York,
 N. Y.).....Major, A.U.S.
 Flater, N. C., Floyd (APO 350, New York, N. Y.)...Capt., A.U.S.
 Huber, R. H., Charles City (Detroit, Mich.)...A.U.S.
 Knight, R. A., Rockford (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Mackie, D. G., Charles City (APO 215, New York,
 N. Y.).....Capt., A.U.S.
 Magdsick, Carl, Charles City (Fleet PO, San Fran-
 cisco, Cal.).....Lt. (jg), U.S.N.R.
 Miner, J. B., Jr., Charles City (San Diego, Cal.)...Lt., U.S.N.R.
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.)
Capt., A.U.S.

Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) 1st Lt., A.U.S.
 Hedgecock, L. E., Hampton (Camp Lejeune,
 N. Car.).....Lt. Comdr., U.S.N.R.
 Randall, W. L., Hampton (Oceanside, Cal.)...Lt., U.S.N.R.
 Walton, S. G., Hampton (APO New York, N. Y.)...Capt., A.U.S.

Fremont County

Kerr, W. H., Hamburg (APO 926, San Francisco,
 Cal.).....Capt., A.U.S.
 Marrs, W. D., Tabor (Ardmore, Okla.)...Capt., A.U.S.
 Powell, R. A., Farragut (Fleet PO, San Fran-
 cisco, Cal.).....Lt. (jg), U.S.N.R.
 Wanamaker, A. R., Hamburg (APO 729, Seattle,
 Wash.).....Major, A.U.S.

Greene County

Cartwright, F. P., Grand Junction (APO 511, New York,
 N. Y.).....Capt., A.U.S.
 Castles, W. A., Rippey (APO 958, San Francisco, Cal.)
Major, A.U.S.
 Hanson, L. C., Jefferson (APO 728, New York, N. Y.)
Capt., A.U.S.
 Jongewaard, A. J., Jefferson (Fleet PO, San
 Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Limburg, J. I., Jr., Jefferson (APO 927, San Francisco,
 Cal.).....Major, A.U.S.
 Lohr, P. E., Churdan (Cleveland, Ohio).....Lt., U.S.N.R.

Grundy County

Cullison, R. M., Dike (Fort Howard, Md.)...Major, A.U.S.
 Rose, J. E., Grundy Center (Fleet PO, New York,
 N. Y.).....Lt. Comdr., U.S.N.R.

Hamilton County

Buxton, O. C., Webster City.....Capt., A.U.S.
 Hobar, B. F., Jewell (APO 514, New York, N. Y.) Major, A.U.S.
 James, D. W., Kamrar (APO 464, New York, N. Y.)
Capt., A.U.S.
 Lewis, W. B., Webster City (APO 383, New York,
 N. Y.).....Major, A.U.S.
 Mooney, F. P., Jewell (London, England).....Capt., R.A.M.C.
 Paschal, G. A., Williams (Camp Crowder, Mo.)...Capt., A.U.S.
 Patterson, R. A., Webster City (San Diego,
 Cal.).....Lt. Comdr., U.S.N.R.
 Ptacek, J. L., Webster City (APO 140, New York,
 N. Y.).....Capt., A.U.S.
 Schrader, M. A., Webster City (Topeka, Kan.)...1st Lt., A.U.S.
 Thompson, E. D., Webster City (Biloxi, Miss.)...Capt., A.U.S.

Hancock-Winnebago Counties

Dulmes, A. H., Klemme (APO 782, New York,
 N. Y.).....Capt., A.U.S.
 Eller, L. W., Kanawha (APO 302, New York,
 N. Y.).....Capt., A.U.S.
 Irish, T. J., Forest City (Fleet PO, San Fran-
 cisco, Cal.).....Lt. Comdr., U.S.N.R.
 Shaw, D. F., Britt (APO 246, Unit 2, San Francisco,
 Cal.).....Major, A.U.S.
 Thomas, C. W., Forest City (APO 519, New York,
 N. Y.).....Major, A.U.S.

Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.)...Lt., U.S.N.R.
 Houlihan, F. W., Ackley (APO 860, New York,
 N. Y.).....1st Lt., A.U.S.
 Jansonius, J. W., Eldora (APO 4834, New York,
 N. Y.).....Capt., A.U.S.
 Johnson, R. J., Iowa Falls (APO 514, New York,
 N. Y.).....Capt., A.U.S.
 Johnson, W. A., Alden (Orlando, Fla.).....Capt., A.U.S.
 Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Todd, V. S., Eldora (APO 70, San Francisco, Cal.)...Capt., A.U.S.

Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Ord, Cal.)...Capt., A.U.S.
 Burbridge, G. E., Logan (APO 511, New York, N. Y.)...Major, A.U.S.
 Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.)...Capt., A.U.S.
 Heise, C. A., Jr., Missouri Valley (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Tamisiea, F. X., Missouri Valley (APO 562, New York, N. Y.)...Capt., A.U.S.

Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.)...Major, A.U.S.
 Cogan, Samuel, Mt. Pleasant
 Dwankowski, Carl, Mt. Pleasant (APO 511, New York, N. Y.)...Major, A.U.S.
 Gloeckler, B. B., Mount Pleasant (APO 9768, New York, N. Y.)...Capt., A.U.S.
 Hartley, B. D., Mount Pleasant (Galesburg, Ill.)...Capt., A.U.S.
 Megordon, W. H., Mount Pleasant (Ogden, Utah)...Capt., A.U.S.
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.)...Major, A.U.S.

Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Nierling, P. A., Cresco (APO 43, San Francisco, Cal.)...Capt., A.U.S.

Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.)...Capt., A.U.S.
 Coddington, J. H., Humboldt (Oklahoma City, Okla.)...Capt., A.U.S.

Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.)...Capt., A.U.S.
 Martin, J. W., Holstein (Albany, Ga.)...Capt., A.U.S.

Iowa County

Geiger, U. S., North English (San Diego, Cal.)...Lt. Comdr., U.S.N.R.
 McDaniel, J. D., Marengo (APO 1010, San Francisco, Cal.)...Capt., A.U.S.
 Miller, D. F., Williamsburg (San Diego, Cal.)...Lt., U.S.N.R.

Jackson County

Bausch, R. G., Bellevue (APO 251, New York, N. Y.)...Capt., A.U.S.
 Skelley, P. B., Jr., Maquoketa (Spokane, Wash.)...1st Lt., A.U.S.
 Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.)...Major, A.U.S.

Jasper County

Doake, Clarke, Newton...1st Lt., A.U.S.
 Minkel, R. M., Newton (APO New York, N. Y.)...Lt. Col., A.U.S.
 Ritchey, S. J., Newton...Lt. Col., A.U.S.

Jefferson County

Castell, J. W., Fairfield (APO 9907, New York, N. Y.)...Capt., A.U.S.
 Frey, Harry, Fairfield (Norfolk, Va.)...Lt. Comdr., U.S.N.R.
 Gittler, Ludwig, Fairfield...Lt. Col., A.U.S.
 Graber, H. E., Fairfield (APO 18642, San Francisco, Cal.)...Major, A.U.S.
 Taylor, I. C., Fairfield (Washington, D. C.)...1st Lt., A.U.S.

Johnson County

Agnew, J. W., Iowa City (APO 17604, New York, N. Y.)...Capt., A.U.S.
 Albert, S. M., Iowa City (APO 9622, New York, N. Y.)...1st Lt., A.U.S.
 Allen, J. H., Iowa City (Scott Field, Ill.)...Major, A.U.S.
 Anderson, E. N., Iowa City (APO 647, New York, N. Y.)...Major, A.U.S.
 Boyd, E. J., Iowa City (APO 140, New York, N. Y.)...Capt., A.U.S.
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco, Cal.)...Lt. Col., A.U.S.
 Bunge, R. G., Iowa City (Orlando, Fla.)...Capt., A.U.S.
 Callahan, G. D., Iowa City (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Coburn, F. E., Iowa City (Toronto, Canada)...Capt., R.C.A.
 Cooper, W. K., Iowa City (Mitchell Field, N. Y.)...Capt., A.U.S.
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.)...Capt., A.U.S.
 Diddle, A. W., Iowa City (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Dörner, R. A., Iowa City (APO 230, New York, N. Y.)...Capt., A.U.S.
 Elmquist, H. S., Iowa City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.
 Emmons, M. B., Iowa City (Camp Bowie, Texas)...Capt., A.U.S.
 Field, Grace E., Iowa City (APO 394, New York, N. Y.)...Major, U.S.P.H.S.
 Flax, Ellis, Iowa City (APO 5833, New York, N. Y.)...1st Lt., A.U.S.
 Flynn, J. E., Iowa City (Hot Springs, Ark.)...Major, A.U.S.
 Fourn, A. S., Iowa City (APO 34, New York, N. Y.)...Lt. Col., A.U.S.
 Francis, N. L., Iowa City (Annapolis, Md.)...Lt. (jg), U.S.N.R.
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.)...Capt., A.U.S.
 Garlinghouse, R. O., Iowa City (Ft. Riley, Kan.)...Lt. Col., A.U.S.
 Hardin, R. C., Iowa City (APO 508, New York, N. Y.)...Major, A.U.S.
 Hartung, Walter, Iowa City (Camp Carson, Colo.)...Capt., A.U.S.
 Hessin, A. L., Iowa City (APO 462, New York, N. Y.)...Major, A.U.S.
 Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.)...Comdr., U.S.N.R.
 January, L. E., Iowa City (Pyote, Texas)...Major, A.U.S.

Kanealy, J. F., Iowa City (APO 928, San Francisco, Cal.)...1st Lt., A.U.S.
 Keislar, H. D., Iowa City (Washington, D. C.)...Capt., A.U.S.
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.)...Lt. U.S.N.R.
 Laubscher, J. H., Iowa City (Ft. Benning, Ga.)...1st Lt., A.U.S.
 Longwell, F. H., Iowa City (Daytona, Fla.)...Major, A.U.S.
 Moreland, F. B., Iowa City (Maxwell Field, Ala.)...1st Lt., A.U.S.
 Naggy, S. F., Iowa City (Fleet PO, New York, N. Y.)...Lt., U.S.N.R.
 Newman, R. W., Iowa City (Jacksonville, Fla.)...Lt. Comdr., U.S.N.R.
 Parkin, G. L., Iowa City (Mountain Home, Idaho) 1st Lt., A.U.S.
 Paulus, E. W., Iowa City (APO 34, New York, N. Y.)...Lt. Col., A.U.S.
 Petersen, V. W., Iowa City (APO 689, New York, N. Y.)...Col., A.U.S.
 Ringrose, E. J., Iowa City
 Sells, R. L., Jr., Iowa City (Palmdale, Cal.)...Capt., A.U.S.
 Smith, H. F., Iowa City (New York, N. Y.)...Lt. Comdr., U.S.N.R.
 Springer, E. W., Iowa City (APO 678, New York, N. Y.)...Capt., A.U.S.
 Stadler, H. E., Iowa City (Washington, D. C.)...1st Lt., A.U.S.
 Staggs, W. A., Iowa City...Major, A.U.S.
 Stephens, R. L., Iowa City (Orlando, Fla.)...Capt., A.U.S.
 Stump, R. B., Iowa City (Denver, Colo.)...Capt., A.U.S.
 Titus, E. L., Iowa City (Belmont, Mass.)...Col., A.U.S.
 Trapasso, T. J., Iowa City (APO 520, New York, N. Y.)...Capt., A.U.S.
 Trussell, R. E., Iowa City (APO 5467, San Francisco, Cal.)...Capt., A.U.S.
 Voelker, C. A., Jr., Iowa City (Eglin Field, Fla.)...Capt., A.U.S.
 Ward, R. H., Iowa City (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Weatherly, H. E., Iowa City (APO 72, San Francisco, Cal.)...Capt., A.U.S.
 Wollmann, W. W., Iowa City (Staunton, Va.)...1st Lt., A.U.S.
 Ziffren, S. E., Iowa City (Springfield Mo.)...1st Lt., A.U.S.

Junior Members

Adams, M. P., Iowa City...Lt. (jg), U.S.N.R.
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.)...A.U.S.
 Ball, A. L., Iowa City (Camp Polk, La.)...Major, A.U.S.
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.)...Capt., A.U.S.
 Black, N. M., Iowa City (McChord Field, Wash.)...1st Lt., A.U.S.
 Blair, J. D., Iowa City (APO San Francisco, Cal.)...Major, A.U.S.
 Boyd, R. J., Iowa City (Spokane, Wash.)...Capt., A.U.S.
 Brintnall, E. S., Iowa City (Colorado Springs, Colo.)...1st Lt., A.U.S.
 Burr, S. P., Iowa City (APO San Francisco, Cal.)...1st Lt., A.U.S.
 Carney, R. G., Iowa City (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Connole, J. F., Iowa City (Camp Bowie, Texas)...1st Lt., A.U.S.
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.)...1st Lt., A.U.S.
 Coulson, F. H., Iowa City (APO New York, N. Y.)...Capt., A.U.S.
 Decker, C. E., Iowa City (Oklahoma City, Okla.)...1st Lt., A.U.S.
 Donnelly, B. A., Iowa City (APO San Francisco, Cal.)...1st Lt., A.U.S.
 Ehrenhaft, J. L., Iowa City (APO New York, N. Y.)...1st Lt., A.U.S.
 Englerth, F. L., Iowa City (APO San Francisco, Cal.)...Capt., A.U.S.
 Freiberg, M., Iowa City (Jefferson Barracks, Mo.)...A.U.S.
 Glassman, A. L., Iowa City (Palm Springs, Cal.)...1st Lt., A.U.S.
 Hamilton, H. E., Iowa City (Chicago, Ill.)...1st Lt., A.U.S.
 Harms, G. E., Iowa City (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 Hendricks, A. B., Iowa City (Klamath Falls, Ore.)...Lt., U.S.N.R.
 Hovis, Wm., Iowa City (Fleet PO, San Francisco, Cal.)...Lt. (jg), U.S.N.R.
 Ide, L. W., Iowa City (Fort Warren, Wyo.)...1st Lt., A.U.S.
 Jacobs, C. A., Iowa City (APO New York, N. Y.)...Major, A.U.S.
 Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.)...1st Lt., A.U.S.
 Keil, P. G., Iowa City (Sioux City, Iowa)...1st Lt., A.U.S.
 Kelberg, M. R., Iowa City (Alameda, Cal.)...Lt., U.S.N.R.
 Keleher, M. F., Iowa City (Great Lakes, Ill.)...Lt. (jg), U.S.N.R.
 Kugler, F. E., Iowa City (Fort Warren, Wyo.)...Capt., A.U.S.
 Lowry, F. C., Iowa City (Sioux Falls, S. D.)...1st Lt., A.U.S.
 McCann, J. P., Iowa City (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 McQuiston, W. O., Iowa City (APO San Francisco, Cal.)...Capt., A.U.S.
 Moen, B. H., Iowa City
 Moon, R. E., Iowa City (APO New York, N. Y.)...1st Lt., A.U.S.
 Odell, Lester, Iowa City (Pensacola, Fla.)...Lt. (jg), U.S.N.R.
 Phillips, R. M., Iowa City (San Francisco, Cal.)...1st Lt., A.U.S.
 Pulliam, R. L., Iowa City (APO 350, New York, N. Y.)...Major, A.U.S.
 Randall, C. G., Iowa City
 Randall, R. G., Iowa City (Waterloo, Iowa)...Capt., A.U.S.
 Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.)...1st Lt., A.U.S.
 Russin, L. A., Iowa City (Fort Blanding, Fla.)...Capt., A.U.S.
 Saar, J. L., Iowa City (APO New York, N. Y.)...Capt., A.U.S.
 Sawtelle, W. W., Iowa City...Lt., U.S.N.R.
 Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 Shand, J. A., Iowa City (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 Shapiro, S. I., Iowa City
 Simpson, F. E., Iowa City (Camp Grant, Ill.)...A.U.S.
 Skewis, J. E., Iowa City (Corona, Cal.)...Lt., U.S.N.R.
 Skouge, O. T., Iowa City

Towle, R. A., Iowa City (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Warren, R. F., Iowa City (Santa Barbara, Cal.) A.U.S.
 Watters, V. G., Iowa City (Fort Leonard Wood, Mo.) 1st Lt., A.U.S.
 Wicks, W. J., Iowa City (Camp Crowder, Mo.) Capt., A.U.S.
 Williams, L. A., Iowa City (Treasure Island, Cal.) 1st Lt., A.U.S.
 Willumsen, H. C., Iowa City (Denver, Colo.) Capt., A.U.S.
 Wolkin, J., Iowa City (San Antonio, Texas) Capt., A.U.S.
 Yetter, W. L., Iowa City (APO New York, N. Y.) Capt., A.U.S.
 Zahrt, N. E., Iowa City (Keesler Field, Miss.) Capt., A.U.S.
 Zimmerman, H. A., Iowa City (Santa Ana, Cal.) 1st Lt., A.U.S.

Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.) Capt., A.U.S.
 Doyle, J. L., Sigourney (Camp Berkeley, Texas) A.U.S.
 Engelmann, A. T., What Cheer (Camp Polk, La.) Capt., A.U.S.
 Graham, J. A., Gibson (Needles, Cal.) 1st Lt., A.U.S.
 Montgomery, G. E., Keota (Antioch, Cal.) Capt., A.U.S.

Kossuth County

Clapsaddle, D. W., Burt Capt., A.U.S.
 Corbin, R. L., Luverne (Des Moines, Iowa) Capt., A.U.S.
 Kenefick, J. N., Algona (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Williams, R. L., Lakota (Iowa City, Iowa) Lt. Comdr., U.S.N.R.

Lee County

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.
 Cleary, H. G., Fort Madison (Ft. Benning, Ga.) Capt., A.U.S.
 Cooper, R. E., Keokuk (APO 565, San Francisco, Cal.) Capt., A.U.S.
 Johnstone, A. A., Keokuk (APO 942, Seattle, Wash.) Col., A.U.S.
 McKee, T. L., Keokuk (Miami Beach, Fla.) Major, A.U.S.
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) Major, A.U.S.
 Rankin, J. R., Keokuk (Memphis, Tenn.) Lt., U.S.N.R.
 Richmond, A. C., Fort Madison (San Bruno, Cal.) Lt. Comdr., U.S.N.R.
 Steffey, F. L., Keokuk (Fort Snelling, Minn.) Capt., A.U.S.
 Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.) Capt., A.U.S.
 Younan, Thomas, Ft. Madison (APO 758, New York, N. Y.) Capt., A.U.S.

Linn County

Andre, G. R., Lisbon (APO 90, New York, N. Y.) Lt. Col., A.U.S.
 Berney, P. W., Cedar Rapids (APO 314, New York, N. Y.) Major, A.U.S.
 Block, W. M., Cedar Rapids (APO 159, San Francisco, Cal.) Capt., A.U.S.
 Chapman, R. M., Cedar Rapids (Chicago, Ill.) Capt., A.U.S.
 Coughlan, V. H., Coggon (Fort Snelling, Minn.) A.U.S.
 Courter, W. O., Springville (APO 464, New York, N. Y.) Major, A.U.S.
 Downing, J. S., Cedar Rapids (APO 565, San Francisco, Cal.) Lt. Col., A.U.S.
 Dunn, F. C., Cedar Rapids (Winfield, Kan.) Major, A.U.S.
 Gearhart, Merriam, Springville (APO 513, New York, N. Y.) Major, A.U.S.
 Gerstman, Herbert, Marion (APO 862, New York, N. Y.) Capt., A.U.S.
 Halpin, L. J., Cedar Rapids (APO 957, San Francisco, Cal.) Major, A.U.S.
 Hecker, J. T., Cedar Rapids (APO 768, New York, N. Y.) Capt., A.U.S.
 Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.) Lt. Col., A.U.S.
 Keith, J. J., Marion (Menlo Park, Cal.) Major, A.U.S.
 Kleck, E. G., Cedar Rapids (San Diego, Cal.) Lt. Comdr., U.S.N.R.
 Kruckenberg, W. G., Mount Vernon (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Leedham, C. L., Springville (Camp Campbell, Ky.) Col., A.U.S.
 Locher, R. C., Cedar Rapids (APO 230, New York, N. Y.) Major, A.U.S.
 MacDougal, R. F., Cedar Rapids (APO 9057, New York, N. Y.) Capt., A.U.S.
 McConkie, E. B., Cedar Rapids (Hines, Ill.) Major, A.U.S.
 McQuiston, J. S., Cedar Rapids (Fort Warren, Wyo.) Lt. Col., A.U.S.
 Meffert, C. B., Cedar Rapids (APO 403, New York, N. Y.) Lt. Col., A.U.S.
 Murray, E. S., Cedar Rapids (APO 512, New York, N. Y.) Lt. Col., A.U.S.
 Netolicky, R. Y., Cedar Rapids (Hawthorne, Nev.) Lt. Comdr., U.S.N.R.
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.) 1st Lt., A.U.S.
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.) Major, A.U.S.
 Parke, John, Cedar Rapids Major, A.U.S.
 Proctor, R. D., Cedar Rapids (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) Major, A.U.S.
 Rieniets, J. H., Cedar Rapids (Charleston, S. Car.) Lt. Comdr., U.S.N.R.
 Sedlacek, L. B., Cedar Rapids (APO 244, San Francisco, Cal.) Lt. Col., A.U.S.
 Smrha, J. A., Cedar Rapids (Topeka, Kan.) Capt., A.U.S.
 Stansbury, J. R., Cedar Rapids (Fort Lewis, Wash.) Capt., A.U.S.
 Sulek, A. E., Cedar Rapids (APO 244, San Francisco, Cal.) Major, A.U.S.
 Woodhouse, K. W., Cedar Rapids (APO 519, New York, N. Y.) Col., A.U.S.

Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) Major, A.U.S.
 Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.) Lt. Comdr., U.S.N.

Louisa County

DeYarman, K. T., Morning Sun (San Antonio, Texas) Capt., A.U.S.
 Tandy, R. W., Morning Sun (Oakland, Cal.) Lt. Comdr., U.S.N.R.

Lucas County

Lister, K. E., Chariton (Fort Snelling, Minn.) A.U.S.

Lyon County

Cook, S. H., Rock Rapids (Lordsburg, N. Mex.) Major, A.U.S.
 Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Oflag 64, Germany) Capt., A.U.S.
 Moriarty, J. F., Rock Rapids Capt., A.U.S.

Madison County

Boden, H. N., Truro (Fresno, Cal.) Capt., A.U.S.
 Chesnut, P. F., Winterset (Camp Gruber, Okla.) Capt., A.U.S.
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) Capt., A.U.S.
 Wicks, R. L., Winterset (APO 204, New York, N. Y.) Lt. Col., A.U.S.

Mahaska County

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.) Major, A.U.S.
 Bos, H. C., Oskaloosa (APO 758, New York, N. Y.) Major, A.U.S.
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Clark, G. H., Oskaloosa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Gillett, R. M., Oskaloosa (Fleet PO, San Francisco, Cal.) Capt., U.S.N.
 Greenlee, M. R., Oskaloosa (Port Hueneme, Cal.) Lt. Comdr., U.S.N.R.
 Hibbs, R. E., Oskaloosa Capt., A.U.S.
 Keohen, G. F., Oskaloosa (Washington, D. C.) Major, A.U.S.
 Lemon, K. M., Oskaloosa (APO 637, New York, N. Y.) Capt., A.U.S.
 Reiley, R. E., Oskaloosa (APO 502, San Francisco, Cal.) Major, A.U.S.
 Shurts, J. J., Oskaloosa (Fort Mason, Cal.) Capt., A.U.S.
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.) Capt., A.U.S.

Marion County

Elliott, V. J., Knoxville (APO 558, New York, N. Y.) Major, A.U.S.
 Mater, D. A., Knoxville (Lincoln, Neb.) Major, A.U.S.
 Ralston, P. P., Knoxville (Indio, Cal.) Capt., A.U.S.
 Schiek, C. M., Knoxville Lt. Comdr., U.S.N.R.
 Schroeder, M. C., Pella (Camp Livingston, La.) Capt., A.U.S.
 Williams, D. B., Knoxville Capt., A.U.S.

Marshall County

Carpenter, R. C., Marshalltown (APO 678 New York, N. Y.) Capt., A.U.S.
 Marble, E. J., Marshalltown (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Marble, W. P., Marshalltown (Colorado Springs, Colo.) Major, A.U.S.
 Meyer, M. G., Marshalltown (APO 513, New York, N. Y.) Major, A.U.S.
 Noonan, J. J., Marshalltown (Fort Jackson, S. Car.) Lt. Col., A.U.S.
 Phelps, R. E., State Center (APO 7, San Francisco, Cal.) Capt., A.U.S.
 Sinning, J. E., Melbourne (Rochester, Minn.) Capt., A.U.S.
 Smith, E. M., State Center (APO 520, New York, N. Y.) Lt. Col., A.U.S.
 Stegman, J. J., Marshalltown (APO 520, New York, N. Y.) Major, A.U.S.
 Wells, R. C., Marshalltown (Gowen Field, Idaho) Capt., A.U.S.
 Wolfe, O. D., Marshalltown (APO 938, Minneapolis, Minn.) Capt., A.U.S.
 Wolfe, R. M., Marshalltown (Mirimar, Cal.) Lt., U.S.N.R.

Mills County

DeYoung, W. A., Glenwood (APO 228, New York, N. Y.) Capt., A.U.S.
 Kuitert, J. H., Glenwood (St. Cloud, Minn.) Major, A.U.S.
 Magaret, E. C., Glenwood (APO 973, Minneapolis, Minn.) Capt., A.U.S.
 Shonka, T. E., Malvern (APO 403, New York, N. Y.) Capt., A.U.S.

Mitchell County

Culbertson, R. A., St. Ansgar (APO 331, San Francisco, Cal.) Lt. Col., A.U.S.
 Moore, E. E., Osage (APO 591, New York, N. Y.) Major, A.U.S.
 Owen, W. E., Osage (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
 Walker, T. G., Riceville (Fleet PO, New York, N. Y.) Lt., U.S.N.R.

Monona County

Almer, L. E., Moorhead (Fort Knox, Ky.) Capt., A.U.S.
 Anderson, S. N., Onawa (Great Lakes, Ill.) Lt., U.S.N.R.
 Ganzhorn, H. L., Mapleton (APO 72, San Francisco, Cal.) Capt., A.U.S.
 Gaukel, L. A., Onawa (Fort Riley, Kan.) Capt., A.U.S.

†Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Stauch, M. O., Whiting (Fort Lewis, Wash.).....Major, A.U.S.
 Wainwright, M. T., Mapleton (Hines, Ill.).....Capt., A.U.S.
 Wolpert, P. L., Onawa (Camp Atterbury, Ind.).....Capt., A.U.S.

Monroe County

Gilliland, C. H., Albia (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.
 Heilmann, V. R., Albia (Camp Maxey, Texas).....Capt., A.U.S.
 Richter, H. J., Albia (Waco, Texas).....Major, A.U.S.
 Smith, R. A., Albia (New Cumberland, Pa.).....Capt., A.U.S.

Montgomery County

Bastron, H. C., Red Oak (APO 951, San Francisco, Cal.).....Major, A.U.S.
 Hansen, F. A., Red Oak (Clarksville, Ark.).....Lt., U.S.N.R.
 Nelson, C. C., Red Oak (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Panzer, E. J. C., Stanton (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Rost, G. S., Red Oak (Halstead, Kan.).....Capt., A.U.S.
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.).....Capt., A.U.S.

Muscatine County

Ady, A. E., West Liberty (Beaufort, S. Car.).....Comdr., U.S.N.R.
 Asthalter, R. W., Muscatine (Fort Meade, Md.).....1st Lt., A.U.S.
 Carlson, E. H., Muscatine (Louisville, Ky.).....Major, A.U.S.
 Goad, R. R., Muscatine (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa).....Major, A.U.S.
 Lindley, E. L., Muscatine (APO 6, San Francisco, Cal.).....Capt., A.U.S.
 Muhs, E. O., Muscatine (APO 573, New York, N. Y.).....Major, A.U.S.
 Norem, Walter, Muscatine (APO, Miami, Fla.).....Capt., A.U.S.
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.).....Capt., A.U.S.
 Sywassink, G. A., Muscatine (APO 488-"Y" Forces, New York, N. Y.).....Lt. Col., A.U.S.
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.).....Lt. Col., A.U.S.

O'Brien County

Getty, E. B., Primghar (APO 153, New York, N. Y.).....Capt., A.U.S.
 Hayne, W. W., Paullina (APO 638, New York, N. Y.).....Capt., A.U.S.
 Moen, S. T., Hartley.....Lt. Col., A.U.S.
 Myers, K. W., Sheldon (Topeka, Kan.).....Capt., A.U.S.

Osceola County

Kuntz, G. S., Sibley (APO 34, New York, N. Y.).....Capt., A.U.S.

Page County

Barnes, C. A., Shenandoah (APO New York, N. Y.).....Capt., A.U.S.
 Bauer, Frank, Shenandoah (APO New York, N. Y.).....A.U.S.
 Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.).....Capt., A.U.S.
 Bossingham, E. N., Clarinda (Fort Ord, Cal.).....Major, A.U.S.
 Brush, Frederick, Shenandoah (APO New York, N. Y.).....A.U.S.
 Bunch, H. McK., Shenandoah (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 Burdick, F. D., Shenandoah (Denver, Colo.).....Capt., A.U.S.
 Burnett, F. K., Clarinda (APO 777, New York, N. Y.).....Major, A.U.S.
 Rausch, G. R., Clarinda (Sioux City, Iowa).....Capt., A.U.S.
 Savare, L. W., Shenandoah (Fort Meade, Md.).....1st Lt., A.U.S.
 Schwidde, Tilford, Shenandoah (APO New York, N. Y.).....A.U.S.

Palo Alto County

Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.

Plymouth County

Bowers, C. V., LeMars (APO New York, N. Y.).....1st Lt., A.U.S.
 Fisch, R. J., LeMars (Denver, Colo.).....Capt., A.U.S.
 Foss, R. H., Remsen (Homestead, Fla.).....Capt., A.U.S.
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.).....Lt. Col., A.U.S.

Pocahontas County

Blair, F. L., Jr., Fonda (San Antonio, Texas).....Lt., U.S.N.R.
 Herrick, T. G., Gilmore City (APO 9875, New York, N. Y.).....Capt., A.U.S.
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.).....Capt., A.U.S.
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.).....Capt., A.U.S.
 Patterson, A. W., Fonda (Des Moines, Iowa).....Capt., A.U.S.

Polk County

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Anderson, N. B., Des Moines (APO 667, New York, N. Y.).....Col., A.U.S.
 Angell, C. A., Des Moines (APO 408, New York, N. Y.).....Capt., A.U.S.
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.).....Lt. Col., A.U.S.
 Barner, J. L., Des Moines (Atlanta, Ga.).....Major, A.U.S.
 Barnes, B. C., Des Moines (APO 1009, San Francisco, Cal.).....Major, A.U.S.
 Bates, M. T., Des Moines (Conna, Cal.).....Lt. Comdr., U.S.N.R.
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Bond, T. A., Des Moines (Shoemaker, Cal.).....Lt., U.S.N.R.

Bone, H. C., Des Moines (Arlington, Cal.).....Major, A.U.S.
 Brown, A. W., Des Moines (APO 5934, New York, N. Y.).....Capt., A.U.S.
 Bruner, J. M., Des Moines (El Paso, Texas).....Major, A.U.S.
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Burgess, F. M., Des Moines (Hot Springs, Ark.).....Capt., A.U.S.
 Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada).....Flight Lt., R.C.A.F.
 Chambers, J. W., Des Moines (APO 667, New York, N. Y.).....Capt., A.U.S.
 Chase, W. B., Jr., Des Moines.....Lt., U.S.N.R.
 Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.).....Capt., A.U.S.
 Connell, J. R., Des Moines (APO 507, New York, N. Y.).....Major, A.U.S.
 Corn, H. H., Des Moines (Camp Beale, Cal.).....Capt., A.U.S.
 Coughlan, D. W., Des Moines (APO 689, New York, N. Y.).....Major, A.U.S.
 Crowley, D. F., Jr., Des Moines (Manchester, N. H.).....Major, A.U.S.
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.).....Capt., A.U.S.
 DeCicco, Ralph, Des Moines (APO 952, San Francisco, Cal.).....Capt., A.U.S.
 Decker, H. G., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Downing, A. H., Des Moines (Clinton, Iowa).....Capt., A.U.S.
 Dushkin, M. A., Des Moines (APO 689, New York, N. Y.).....Lt. Col., A.U.S.
 Elliott, O. A., Des Moines (La Junta, Colo.).....Capt., A.U.S.
 Ellis, H. G., Des Moines (APO 710, San Francisco, Cal.).....Capt., A.U.S.
 Ervin, L. J., Des Moines (Victoria, Texas).....Lt. Col., A.U.S.
 Fleck, W. L., Des Moines (Ft. Howard, Md.).....Lt. Col., A.U.S.
 Fried, David, Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Fracasse, John, Des Moines.....1st Lt., A.U.S.
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Gerchek, E. W., Des Moines
 Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.).....Major, A.U.S.
 Glomset, D. A., Des Moines (APO 152, New York, N. Y.).....Capt., A.U.S.
 Goldberg, Louie, Des Moines (APO 926, San Francisco, Cal.).....Capt., A.U.S.
 Gordon, A. M., Des Moines (APO 464, New York, N. Y.).....Capt., A.U.S.
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Greek, L. M., Des Moines (APO 512, New York, N. Y.).....Capt., A.U.S.
 Gurau, H. H., Des Moines (Austin, Texas).....Capt., A.U.S.
 Haines, D. J., Des Moines (APO 75, San Francisco, Cal.).....Capt., A.U.S.
 Harris, D. D., Des Moines (Gulfport, Miss.).....Lt. Comdr., U.S.N.R.
 Harris, H. L., Des Moines (Salina, Kan.).....1st Lt., A.U.S.
 Hess, John, Jr., Des Moines.....1st Lt., A.U.S.
 James, A. D., Des Moines (Fort Eustis, Va.).....Comdr., U.S.N.R.
 Johnston, C. H., Des Moines (Spokane, Wash.).....Lt. Col., A.U.S.
 Kast, D. H., Des Moines (Fort Stevens, Ore.).....Capt., A.U.S.
 Kelley, E. J., Des Moines (Columbus, Ohio).....Lt. Comdr., U.S.N.R.
 Kirch, W. A. W., Des Moines (Astoria, Ore.).....Lt. Comdr., U.S.N.R.
 Klockslem, H. L., Des Moines (APO New York, N. Y.).....Capt., A.U.S.
 Landis, S. N., Des Moines (West Palm Beach, Fla.).....1st Lt., A.U.S.
 La Tona, Salvatore, Des Moines.....1st Lt., A.U.S.
 Lederman James, Des Moines.....1st Lt., R.C.A.
 Lehman, E. W., Des Moines (APO 565, San Francisco, Cal.).....Major, A.U.S.
 Losh, C. W., Jr., Des Moines (APO 209, New York, N. Y.).....Capt., A.U.S.
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Maloney, P. J., Des Moines (Fort Lewis, Wash.).....1st Lt., A.U.S.
 Marquis, G. S., Des Moines (Brooklyn, N. Y.).....Lt. Comdr., U.S.N.R.
 Martin, L. E., Des Moines (Helena, Ark.).....1st Lt., A.U.S.
 Matheson, J. H., Des Moines (San Leandro, Cal.).....Lt. Comdr., U.S.N.R.
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.).....Capt., A.U.S.
 McCoy, H. J., Des Moines (Iowa City, Iowa).....Comdr., U.S.N.R.
 McDonald, D. J., Des Moines (APO 339, New York, N. Y.).....Major, A.U.S.
 McNamee, J. H., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Mencher, E. W., Des Moines.....1st Lt., A.U.S.
 Merkel, B. M., Des Moines (Denver, Colo.).....Major, A.U.S.
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.).....Capt., A.U.S.
 †Morden, R. P., Des Moines (APO 635, New York, N. Y.).....Capt., A.U.S.
 Mumma, C. S., Des Moines (Los Angeles, Cal.).....Major, A.U.S.
 Murphy, J. H., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Nelson, A. L., Des Moines (Camp Livingston, La.).....Major, A.U.S.
 Noun, L. J., Des Moines (Camp Peary, Va.).....Lt., U.S.N.R.
 Noun, M. H., Des Moines (APO 228, New York, N. Y.).....Major, A.U.S.
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.

Overton, L. M., Des Moines (San Bruno, Cal.) Lt. Comdr., U.S.N.R.
 Patton, B. W., Des Moines (Camp Robinson, Ark.) 1st Lt., A.U.S.
 Pearlman, L. R., Des Moines (San Antonio, Texas) Major, A.U.S.
 Peisen, C. J., Des Moines (APO 165, New York, N. Y.) Capt., A.U.S.
 Penn, E. C., West Des Moines (APO 650, New York, N. Y.) Capt., A.U.S.
 Pfeiffer, E. P., Des Moines (APO 501, San Francisco, Cal.) Capt., A.U.S.
 Phillips, A. B., Des Moines (Corona, Cal.) Lt., U.S.N.R.
 Porter, R. J., Des Moines (APO 635, New York, N. Y.) Capt., A.U.S.
 Powell, L. D., Des Moines Capt., U.S.N.R.
 Pratt, E. B., Des Moines (APO New York, N. Y.) Lt. Col., A.U.S.
 Priestley, J. B., Des Moines (APO 689, New York, N. Y.) Lt. Col., A.U.S.
 Purdy, W. O., Des Moines (APO 5935, New York, N. Y.) Major, A.U.S.
 Riegelman, R. H., Des Moines (APO 559, New York, N. Y.) Major, A.U.S.
 Robinson, V. C., Des Moines (Gulfport, Miss.) Major, A.U.S.
 Rotkow, M. J., Des Moines (Camp Atterbury, Ind.) Capt., A.U.S.
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Schlaser, V. L., Des Moines (Hutchinson, Kan.) Lt., U.S.N.R.
 Shepherd, L. K., Des Moines (APO New York, N. Y.) Major, A.U.S.
 Shiffer, H. K., Des Moines (APO 230, New York, N. Y.) Capt., A.U.S.
 Singer, P. L., Des Moines (Camp Grant, Ill.) 1st Lt., A.U.S.
 Skultety, J. A., Des Moines (New Orleans, La.) P. A. Surg., U.S.P.H.S.
 Smead, H. H., Des Moines (APO 595, New York, N. Y.) Capt., A.U.S.
 Smith, H. J., Des Moines (Chicago, Ill.) Lt., U.S.N.R.
 Smith, R. T., Des Moines (APO 713, Unit I, San Francisco, Cal.) Capt., A.U.S.
 *Snodgrass, R. W., Des Moines (APO 9528, New York, N. Y.) Capt., A.U.S.
 Snyder, G. E., Grimes (APO 264, San Francisco, Cal.) Major, A.U.S.
 Sohn, H. A., Des Moines (Great Lakes, Ill.) Lt. Comdr., U.S.N.R.
 Sorensen, R. M., Des Moines (Topeka, Kan.) Major, U.S.P.H.S.
 Springer, F. A., Des Moines (Treasure Island, Cal.) Lt. Comdr., U.S.N.R.
 Stearns, A. B., Des Moines (Denver, Colo.) Major, A.U.S.
 Stickler, Robert, Des Moines (APO New York, N. Y.) Major, A.U.S.
 Stitt, P. L., Des Moines (Seattle, Wash.) Lt. (jg), U.S.N.R.
 Throckmorton, J. F., Des Moines (APO 339, New York, N. Y.) Major, A.U.S.
 Toubes, A. A., Des Moines (APO 635, New York, N. Y.) Capt., A.U.S.
 Turner, H. V., Des Moines (Camp Fannin, Texas) Capt., A.U.S.
 Updegraff, Thomas, Des Moines (APO San Francisco, Cal.) Capt., A.U.S.
 Van Hale, L. A., Des Moines (Clinton, Iowa) Major, A.U.S.
 Vaubel, E. K., Des Moines (Washington, D. C.) Capt., A.U.S.
 Wagner, E. C., Des Moines (Washington, D. C.) 1st Lt., A.U.S.
 Willett, W. M., Des Moines (APO 507, New York, N. Y.) Capt., A.U.S.
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Zarchy, A. C., Des Moines (Camp Cooke, Cal.) Capt., A.U.S.

Pottawattamie County

†Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.) Major, A.U.S.
 Collins, R. M., Council Bluffs (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Dean, A. M., Council Bluffs (Pensacola, Fla.) Comdr., U.S.N.R.
 Edwards, C. V., Council Bluffs (Pensacola, Fla.) Lt. Comdr., U.S.N.R.
 Floersch, E. B., Council Bluffs (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Hennessy, J. D., Council Bluffs (Clinton, Okla.) Lt. Comdr., U.S.N.R.
 Jensen, A. L., Council Bluffs (Ft. Lewis, Wash.) Lt. Col., A.U.S.
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.) Lt., U.S.N.R.
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.) Capt., A.U.S.
 Limbert, E. M., Council Bluffs (APO 403, New York, N. Y.) Major, A.U.S.
 Maiden, S. D., Council Bluffs (Camp Hood, Texas) Major, A.U.S.
 Martin, L. R., Council Bluffs (Auburn, Cal.) Capt., A.U.S.
 Mathiasen, H. W., Neola (Alexandria, La.) Capt., A.U.S.
 Moskovitz, J. M., Council Bluffs (APO 887, New York, N. Y.) Capt., A.U.S.
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.) Capt., A.U.S.
 Standeven, W., Oakland (Colorado Springs, Colo.) Capt., A.U.S.
 Sternhill, Isaac, Council Bluffs (Camp Crowder, Mo.) Capt., A.U.S.
 Tinley, R. E., Council Bluffs (APO 600, New York, N. Y.) Major, A.U.S.
 Treyner, J. V., Council Bluffs (Chicago, Ill.) Comdr., U.S.N.R.
 West, A. G., Council Bluffs (APO 230, New York, N. Y.) Capt., A.U.S.
 Wieseler, R. J., Avoca (McChord Field, Wash.) A.U.S.
 Wurk, O. A., Council Bluffs (APO 887, New York, N. Y.) Lt. Col., A.U.S.

Poweshiek County

Brobyn, T. E., Grinnell (APO 18593, New York, N. Y.) Major, A.U.S.
 Hickerson, L. C., Brooklyn (APO 559, New York, N. Y.) Capt., A.U.S.
 Korfmacher, E. S., Grinnell (APO 923, San Francisco, Cal.) Capt., A.U.S.
 Niemann, T. V., Brooklyn (APO 43, San Francisco, Cal.) Capt., A.U.S.
 Parish, J. R., Grinnell (Oakland, Cal.) Lt. Comdr., U.S.N.R.
 Somers, P. E., Grinnell (Denver, Colo.) 1st Lt., A.U.S.

Ringgold County

Seaman, C. L., Mount Ayr (Fort Smith, Ark.) Major, A.U.S.

Sac County

Bassett, G. H., Sac City (Metairie, La.) Lt. Comdr., U.S.N.R.
 Deters, D. C., Schaller (APO 34, New York, N. Y.) Capt., A.U.S.
 Evans, W. I., Sac City (APO 9212, New York, N. Y.) Capt., A.U.S.
 Klocksiem, R. G., Odebolt (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Neu, H. N., Sac City (APO 708, San Francisco, Cal.) Lt. Col., A.U.S.

Scott County

†Baker, R. W., Davenport (APO 611, New York, N. Y.) Capt., A.U.S.
 Balzer, W. J., Davenport (APO 569, New York, N. Y.) Capt., A.U.S.
 Bishop, J. F., Davenport (Camp Wheeler, Ga.) Capt., A.U.S.
 Block, L. A., Davenport (Cambridge, Ohio) Major, A.U.S.
 Boden, W. C., Davenport (APO 3760, New York, N. Y.) Capt., A.U.S.
 Boyer, U. S., Davenport (Rock Island, Ill.) Lt. Col., A.U.S.
 Brown, M. J., Davenport (APO 562, New York, N. Y.) Lt. Col., A.U.S.
 Carey, E. T., Davenport (APO 928, San Francisco, Cal.) 1st Lt., A.U.S.
 Christiansen, C. C., Dixon (APO 961, San Francisco, Cal.) Capt., A.U.S.
 Coleman, Tom, Davenport (APO 230, New York, N. Y.) Capt., A.U.S.
 Cummins, G. M., Jr., Davenport (Fort Custer, Mich.) Capt., A.U.S.
 Decker, C. E., Davenport (APO 321, San Francisco, Cal.) Major, A.U.S.
 Evans, H. J., Davenport (Daytona Beach, Fla.) Capt., A.U.S.
 Gibson, P. E., Davenport (Palm Springs, Cal.) Major, A.U.S.
 Goenne, Wm., Jr., Davenport (APO 91, New York, N. Y.) Capt., A.U.S.
 Hurevitz, H. M., Davenport (APO 370, New York, N. Y.) Major, A.U.S.
 Hurteau, Everett, Davenport (APO 647, New York, N. Y.) Capt., A.U.S.
 Hurteau, W. W., Davenport (Camp Barkeley, Texas) Major, A.U.S.
 Kimberly, L. W., Davenport (Oak Ridge, Tenn.) Capt., A.U.S.
 Krakauer, Max, Davenport (APO 758, New York, N. Y.) Capt., A.U.S.
 Kuhl, A. B., Jr., Davenport (Ft. Meade, Md.) 1st Lt., A.U.S.
 LaDage, L. H., Davenport (APO 339, New York, N. Y.) Major, A.U.S.
 Lorfeld, G. W., Davenport (Columbus, Ohio) Capt., A.U.S.
 McMeans, T. W., Davenport (APO 557, New York, N. Y.) Capt., A.U.S.
 Neufeld, R. J., Davenport (APO 565, Unit I, San Francisco, Cal.) Capt., A.U.S.
 Perkins, R. M., Davenport (APO 121B, New York, N. Y.) Capt., A.U.S.
 Sheeler, I. H., Davenport (APO 350, New York, N. Y.) Capt., A.U.S.
 Shorey, J. R., Davenport (APO 204, New York, N. Y.) Capt., A.U.S.
 Smazal, S. F., Davenport (APO 230, New York, N. Y.) Capt., A.U.S.
 Sorenson, A. C., Davenport (Oakland, Cal.) Comdr., U.S.N.R.
 Sunderbruch, J. H., Davenport (APO 70, San Francisco, Cal.) Capt., A.U.S.
 Weinberg, H. B., Davenport (APO 72, San Francisco, Cal.) Major, A.U.S.
 Zukerman, C. M., Bettendorf (Chicago, Ill.) Capt., A.U.S.

Shelby County

Bisgard, C. V., Harlan (Farragut, Idaho) Lt. Comdr., U.S.N.R.
 Griffith, W. O., Shelby (APO 9490, New York, N. Y.) Capt., A.U.S.
 McGowan, J. P., Harlan (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Sioux County

Gleysteen, R. R., Alton (Portsmouth, Va.) Lt. Comdr., U.S.N.
 Grossmann, E. B., Orange City (APO 403, New York, N. Y.) Capt., A.U.S.
 Larson, M. O., Hawarden (APO 562, New York, N. Y.) Lt. Col., A.U.S.
 Oelrich, A. M., Hull (APO New York, N. Y.) 1st Lt., A.U.S.
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.) 1st Lt., A.U.S.

Story County

Conner, J. D., Nevada (APO 73, San Francisco, Cal.) Capt., A.U.S.
 Fellows, J. G., Ames (APO 451, New York, N. Y.) Major, A.U.S.
 Lekwa, A. H., Story City (San Diego, Cal.) Lt. Comdr., U.S.N.R.

McFarland, G. E., Jr., Ames (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 McFarland, J. E., Ames (Seattle, Wash.) Lt. Comdr., U.S.N.R.
 Rosebrook, L. E., Ames (APO 433, New York N. Y.) Major, A.U.S.
 Sperow, W. B., Nevada, (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Thorburn, O. L., Ames (Clovis, N. Mex.) Major, A.U.S.
 Wall, David, Ames (APO 448, New York, N. Y.) 1st Lt., A.U.S.

Tama County

Bezman, H. S., Traer (APO 9875, New York, N. Y.) Capt., A.U.S.
 Bolter, G. C., Traer (Ft. Riley, Kansas) Capt., A.U.S.
 Dobias, S. G., Chelsea (APO 86, San Francisco, Cal.) Capt., A.U.S.
 Havlik, A. J., Tama (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Schaeferle, L. G., Gladbrook (APO New York, N. Y.) Capt., A.U.S.
 Standefer, J. M., Tama (Des Moines, Iowa) Lt., U.S.N.R.

Taylor County

Hardin, J. F., Bedford (APO 952, San Francisco, Cal.) 1st Lt., A.U.S.

Union County

Beatty, H. G., Creston (New Orleans, La.) 1st Lt., A.U.S.
 Paragas, M. R., Creston (APO 442, San Francisco, Cal.) Capt., A.U.S.
 Ryan, C. J., Creston Capt., A.U.S.

Wapello County

Brentan, Emanuel, Ottumwa (Camp Carson, Colo.) Capt., A.U.S.
 Brody, Sidney, Ottumwa (Monticello, Ark.) Lt. Col., A.U.S.
 Gillilan, C. D. N., Eldon (Battle Creek, Mich.) Capt., A.U.S.
 Howell, H. P., Ottumwa (Hamilton Field, Cal.) Major, A.U.S.
 Hughes, R. O., Ottumwa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Moore, G. C., Ottumwa (APO 314, New York, N. Y.) Capt., A.U.S.
 Nelson, F. L., Jr., Ottumwa (Springfield, Mo.) Capt., A.U.S.
 Prewitt, L. H., Ottumwa (Louisville, Ky.) Major, A.U.S.
 Selman, R. J., Ottumwa (El Paso, Texas) Col., A.U.S.
 Struble, G. C., Ottumwa (Cleveland, Ohio) Lt. Col., A.U.S.
 Whitehouse, W. N., Ottumwa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Warren County

Fullgrabe, E. A., Indianola (Fleet PO, New York, N. Y.) Lt., U.S.N.R.
 Hoffman, G. R., Lacona (Camp San Louis Obispo, Cal.) Capt., A.U.S.
 Shaw, E. E., Indianola (APO 834, New Orleans, La.) Capt., A.U.S.
 Trueblood, C. A., Indianola (APO 350, New York, N. Y.) Capt., A.U.S.

Washington County

Boice, C. L., Washington (Fleet PO, San Francisco, Cal.) Lt., U.S.N.
 Droz, A. K., Washington (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Mast, T. M., Washington (Great Lakes, Illinois) Lt. Comdr., U.S.N.R.
 Miller, J. R., Wellman (APO New York, N. Y.) 1st Lt., A.U.S.
 Stutsman, R. E., Washington (Patuxent River, Md.) Lt., U.S.N.R.
 Ware, S. C., Kalona (APO 218, New York, N. Y.) Capt., A.U.S.

Wayne County

Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.) Capt., A.U.S.

Webster County

Baker, C. J., Fort Dodge (APO New York, N. Y.) Major, A.U.S.
 Burch, E. S., Dayton (Palm Springs, Cal.) Capt., A.U.S.
 Burleson, M. W., Fort Dodge (Pasadena, Cal.) Capt., A.U.S.
 Coughlan, C. H., Fort Dodge (Camp Carson, Colo.) Major, A.U.S.
 Dawson, E. B., Fort Dodge (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Glesne, O. N., Ft. Dodge (New River, N. C.) Lt. Comdr., U.S.N.R.
 Joyner, N. M., Fort Dodge (Minneapolis, Minn.) A.U.S.
 Kluever, H. C., Fort Dodge (St. Louis, Mo.) Lt. Comdr., U.S.N.R.
 Larsen, H. T., Fort Dodge (Pensacola, Fla.) Lt., U.S.N.R.
 Shrader, J. C., Fort Dodge (APO 758, New York, N. Y.) Lt. Col., A.U.S.
 Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.) Capt., A.U.S.
 Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.) Capt., A.U.S.
 Van Patten, E. M., Ft. Dodge (El Paso, Texas) Capt., A.U.S.

Winneshiek County

Fritchen, A. F., Decorah (Mare Island, Cal.) Comdr., U.S.N.R.
 Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.) Lt. Col., A.U.S.
 Larson, L. E., Decorah (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Svendsen, R. N., Decorah (San Diego, Cal.) Lt. (jg), U.S.N.R.
 Van Besien, G. J., Decorah (Springfield, Mo.) Capt., A.U.S.

Woodbury County

Bettler, P. L., Sioux City (APO 235, San Francisco, Cal.) Lt. Col., A.U.S.
 Blackstone, M. A., Sioux City (San Francisco, Cal.) Capt., A.U.S.
 Boe, Henry, Sioux City (Fort Snelling, Minn.) Capt., A.U.S.

Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Cmeylea, P. M., Sioux City (P.O.W., c/o Japanese Red Cross, Tokyo, Japan) Capt., A.U.S.
 Cowan, J. A., Sioux City (Oklahoma City, Okla.) Major, U.S.P.H.S.
 Crowder, R. E., Sioux City (Kansas City, Mo.) Lt. Comdr., U.S.N.R.
 Dimsdale, L. J., Sioux City (Clinton, Iowa) Capt., A.U.S.
 Down, H. I., Sioux City (APO 758, New York, N. Y.) Lt. Col., A.U.S.
 Elson, V. J., Danbury (APO 9875, New York, N. Y.) Capt., A.U.S.
 Frank, L. J., Sioux City (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Graham, J. W., Sioux City (Pensacola, Fla.) Lt. Comdr., U.S.N.R.
 Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.) Capt., A.U.S.
 Harris, D. M., Sioux City (APO 444, New York, N. Y.) Capt., A.U.S.
 Heffernan, C. E., Sioux City (APO 17682, San Francisco, Cal.) Capt., A.U.S.
 Hicks, W. K., Sioux City (Spokane, Wash.) Major, A.U.S.
 Honke, E. M., Sioux City (Palm Springs, Cal.) Major, A.U.S.
 Kaplan, David, Sioux City (APO 36, New York, N. Y.) Capt., A.U.S.
 Knott, P. D., Sioux City (Camp Crowder, Mo.) Capt., A.U.S.
 Knott, R. C., Sioux City (APO 408, New York, N. Y.) Major, A.U.S.
 Krigten, W. M., Sioux City (Springfield, Mo.) Lt. Col., A.U.S.
 Lande, J. N., Sioux City (APO 63, New York, N. Y.) Major, A.U.S.
 Martin, R. F., Sioux City (APO 403, New York, N. Y.) Capt., A.U.S.
 Mattice, L. H., Danbury (APO 713, San Francisco, Cal.) 1st Lt., A.U.S.
 McCuiston, H. M., Sioux City (APO 209, New York, N. Y.) Major, A.U.S.
 Mugan, R. C., Sioux City (Miami Beach, Fla.) Capt., A.U.S.
 Osincup, P. W., Sioux City (APO 520, New York, N. Y.) Capt., A.U.S.
 Rarick, I. H., Sioux City (Camp Pinedale, Cal.) Capt., A.U.S.
 Reeder, J. E., Jr., Sioux City (APO 209, New York, N. Y.) Major, A.U.S.
 Ryan, M. J., Sioux City (Topeka, Kan.) Major, A.U.S.
 Schwartz, J. W., Sioux City (APO 888, New York, N. Y.) Lt. Col., A.U.S.
 Tracy, J. S., Sioux City (Camp Polk, La.) Major, A.U.S.

Worth County

Westly, G. S., Manly (APO 927, San Francisco, Cal.) Major, A.U.S.

Wright County

Aagesen, C. A., Dows (APO 383, New York, N. Y.) Capt., A.U.S.
 Bird, R. G., Clarion (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Doles, E. A., Clarion (Spokane, Wash.) Capt., A.U.S.
 Gorrell, R. L., Clarion (Denver, Colo.) P.A. Surg., U.S.P.H.S.
 Leinbach, S. P., Belmond (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.) Capt., A.U.S.

(*) Reported missing in action.

(†) Reported deceased in service.

(‡) Reported prisoner of war.

FALL REFRESHER COURSE IN LARYNGOLOGY, RHINOLOGY AND OTOTOLOGY

The University of Illinois College of Medicine announces its sixth semi-annual refresher course in Laryngology, Rhinology and Otology, September 24 through September 29, 1945, at the College, in Chicago. The course is intensive and largely didactic, but some clinical instruction is also provided.

It is especially suited to specialists unable to devote a longer period for advanced instruction and to others seeking a comprehensive review of the field of otorhinolaryngology. The number of registrants will be limited. It is therefore desirable to apply for registration immediately. The fee is \$50.00. When applying, give full details as to school and year of graduation, postgraduate training, college degrees, etc. Write to Dr. A. R. Hollender, Chairman, Refresher Course Committee, Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.

WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

President—MRS. SOREN S. WESTLY, Manly

President-Elect—MRS. ARTHUR E. MERKEL, Des Moines

Secretary—MRS. KEITH M. CHAPLER, Dexter

Treasurer—MRS. HARRY W. DAHL, Des Moines

PRESIDENT-ELECT'S ANNUAL REPORT

I attended the National Convention in Chicago in June, 1944, and also attended the first Conference of State Presidents, Presidents-Elect and Committee Chairmen in Chicago in November. It was interesting to hear the reports from the various states.

I wrote the presidents of all county medical societies asking their permission to organize an Auxiliary, also asking them for the names of some of the wives who would be most willing to help in organizing. The doctors were most cooperative. Almost every one answered, suggesting some lady or ladies for me to contact. One doctor *asked* me to organize an Auxiliary in his county. Then I wrote to the women suggested and their response was excellent. Helping their over-worked husbands and their husband's ages were the principle excuses, but, of course, I had some encouraging replies. The chief difficulty was transportation. If I could have met with the ladies, I could have organized many more.

On March 28, I drove to Fort Dodge where Mrs. F. L. Knowles had arranged a noon luncheon at the Warden Hotel. Following the luncheon a business meeting was held with Mrs. L. L. Leighton presiding. They decided in favor of carrying on while our doctors are in the service and reorganized, electing Mrs. R. M. Minkel president and Mrs. J. C. Shrader, secretary-treasurer. The following wives joined this Auxiliary: Mrs. R. M. Minkel, Mrs. J. C. Shrader, Mrs. L. M. Martin, Mrs. A. A. Schultz, Mrs. M. G. Sanders, Mrs. H. W. Scott, Mrs. J. F. Sulzbaugh, Mrs. Sebern, Mrs. W. C. Thatcher, Mrs. F. L. Knowles, Mrs. E. M. Kersten, Mrs. W. R. Turner, Mrs. Sharon, Mrs. L. L. Leighton, Mrs. S. B. Chase, Mrs. E. F. Beeh, and Mrs. O. D. Thatcher.

Mrs. M. A. Armstrong arranged a luncheon in Storm Lake at the Bradford Hotel for March 30. Since at the last minute I was unable to be present, I called Mrs. Armstrong and we planned it by telephone. An Auxiliary was organized for Buena Vista county with Mrs. Armstrong as president and Mrs. J. W. Morrison as secretary-treasurer. The following women are members: Mrs. M. A. Armstrong of Newell, Mrs. J. W. Morrison of Alta, Mrs. A. B. Carstensen of Linn Grove, Mrs. B. B. Bridge of Albert City, Mrs. J. H. O'Donoghue of Storm Lake, and Mrs. R. E. Almquist of Albert City.

The Butler County Medical Society held their regular meeting, a dinner, on March 19 with their wives, after which I met with the wives at the home of Dr. F. F. McKean and an Auxiliary was organized. Mrs. F. A. Rolfs of Aplington is president, Mrs. C. F. Roder of Dumont, secretary, and Mrs. F. F. McKean of Allison, treasurer. Mrs. W. E. Day of Clarksville and Mrs. J. G. Evans of New Hartford were present. Other prospective members will be contacted later.

The organization chairman invited me to attend the annual meeting of the Public Relations Committee of Hennepin County Auxiliary in January. Dr. Tuohy, president of the Minnesota State Medical Association gave a talk on "Growing Old Gracefully." A tea followed at which I enjoyed meeting many of the ladies. We discussed ways and means of new auxiliaries.

Mrs. S. S. Westly, President-Elect.

ANNUAL REPORT OF NURSES LOAN FUND

Balance April 1, 1944.....	\$368.26
Interest June 1.....	3.68
Interest December 1.....	3.71
Dallas-Guthrie	5.00
Polk County	15.00
Woodbury	5.00

Total\$400.65

Mrs. W. R. Hornaday, Chairman.

ANNUAL BULLETIN REPORT

Mrs. M. J. Moes of Dubuque reported ten known subscriptions to *The Bulletin* for the past year.

ORCHIDS TO OUR STATE PRESIDENT

Along with the fine work which Mrs. S. S. Westly of Manly is doing as state president of the Woman's Auxiliary, she is continuing her interest and activity for cancer research as a state deputy commander in the Field Army of Cancer Research.

BOONE COUNTY AUXILIARY ORGANIZED

On May 19 Mrs. S. S. Westly, State President, met with the doctors' wives in Boone at the Lincoln Tavern. Following luncheon an auxiliary was organized with Mrs. B. T. Whitaker of Boone as

(Continued on page 317)

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. WALTER L. BIERRING, Des Moines, Chairman

DR. HENRY G. LANGWORTHY, Dubuque, *Secretary* DR. CHARLES L. JONES, Gilmore City

DR. CLYDE A. HENRY, Farson

DR. LESTER C. KERN, Waverly

OLIVER JAMES FAY, M. D.

1874-1945

An Appreciation

The many friends of Dr. Oliver J. Fay were saddened by the news of his death on Saturday, June 2, 1945. At the recent meeting of the House of Delegates of the Iowa State Medical Society he appeared as vigorous and alert as ever. While symptoms of hypertensive heart disease had been manifest for some time, the final illness was of short duration, resulting from severe left ventricular failure and obstructive peripheral endarteritis.

Dr. Fay was a native Iowan, having been born in Postville, Allamakee County, July 2, 1874. He spent his boyhood on the farm, attended the District School and Breckenridge Academy in Decorah, later graduated as Bachelor of Science from Iowa State College, Ames, and received his degree of Doctor of Medicine in 1902 at the College of Physicians and Surgeons, now University of Illinois College of Medicine, Chicago. After nearly two years of service as intern and surgical assistant in the service of Dr. Albert J. Ochsner at Augustana Hospital, he located in Des Moines in the spring of 1904 for the special practice of general surgery.

On March 17, 1904, he was married at St. Charles, Louisiana, to Helen L. Knapp, the daughter of the distinguished agricultural scientist, Dr. Seaman Knapp, former president of Iowa State College.

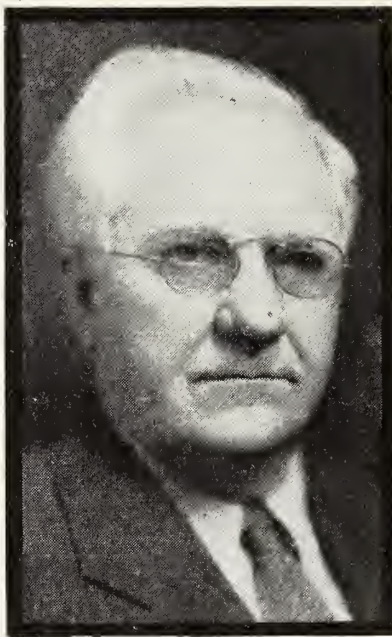
It was my privilege to have known Oliver J. Fay for a period of nearly forty years. The first meeting is still clear in my memory, since we appeared jointly on the program of the Poweshiek County Medical Society at Brooklyn—he to discuss the surgical phases of gastric ulcer and I the medical aspects. As further meetings extended our acquaintance, I early became impressed with his enthusiasm and earnest desire to practice surgery in coopera-

tion with his medical advisers, and, except in surgical emergencies, to defer surgical treatment until all possible diagnostic procedures had been carried out.

The turn of events brought a change in residence from Iowa City to Des Moines in September, 1910, and in the following thirty-five years I came to know Oliver Fay as a man, a colleague, and a friend, with a growing admiration of his many talents for leadership in different fields of social and medical service. For a period of three years we were associates on the Faculty of Drake University Medical School, until the merger with the State University College of Medicine at Iowa City. Dr. Fay was professor of clinical surgery, and while it was a rather short experience in the teaching field, his understanding and knowledge of the needs in surgical training of the undergraduate and the young practitioners stamped him as a medical teacher of definite promise.

In the continued association in hospital service, frequent consultations at the bedside and opportunity to recognize his surgical judgment and operative skill permitted a further estimate of his high professional attainments. Although his office and hospital practice developed to an unusual extent, the welfare of the patient was always of dominant interest and concern. One came to recognize some of his familiar expressions, often rather forceful and hardly of scriptural origin, such as the continued emphasis of the "aseptic scalpel" and its important place in the recognition of "living pathology."

He kept careful and complete records of all patients who came under his care, and early in his career began to publish his observations of inter-



OLIVER JAMES FAY, M.D.

esting and unusual surgical conditions. In 1908 he reported the successful operative removal of an enormous ovarian cyst weighing between 175 and 200 pounds. His earlier publications were largely concerned with surgical treatment of gastric ulcer, the diagnosis of carcinoma of the cecum, differential diagnosis of abdominal trauma, traumatic rupture of abdominal viscera, evaluation of the trauma factor in hernia, malignancy, and tuberculosis, as well as a careful study of the general subject of peritonitis. In 1915 he published his observations on 500 cases of acute appendicitis.

In August, 1914, there appeared in *Surgery, Gynecology and Obstetrics*, pages 174-190, his exhaustive study on Traumatic Parosteal Bone and Callus Formation, The So-Called Traumatic Ossifying Myositis, well illustrated with a carefully prepared bibliography, beginning with the first observation by Copping in 1740. The second study that is outstanding and reported during the period of active surgical practice was that on Early and Late Lesions Due to Electric Injuries, published in the June, 1923, issue of THE JOURNAL OF THE IOWA STATE MEDICAL SOCIETY. While carrying on this study, Dr. Fay entered into an extensive correspondence with Professor Stefan Jellinek of the University of Vienna, then one of the leading authorities in this field.

With his increasing interest in industrial surgery, articles appeared on the evaluation of functional nervous disorders, of cerebral concussion, skull fractures, cranial and spine injuries. His duties as medical adviser to the Iowa Industrial Commission, Medical Director for Iowa of the Northwestern Bell Telephone Company, and Surgical Consultant of several leading railway systems operating out of Des Moines greatly enlarged his experience in the field of traumatic surgery.

During the last twelve years his writings were largely concerned with medical organization and the dangers inherent in the direction of medical thought toward the federalization of medical practice. These included his address as guest speaker at the annual session of the Nebraska State Medical Association in 1935, and as president of the Northwest Regional Conference in 1936.

His interest in the humanities and ventures into other fields of knowledge are indicated by his learned discussion before the Prairie Club of Des Moines a few years ago on Some Biologic Aspects of Crime. He was a great admirer of Mark Twain and probably had one of the most complete collections of the writings of America's great humorist.

For many years a large room was set aside in his office suite for his medical library which contained many rare treasures in medical literature, among them a number of complete sets such as Virchow's "Archives of Pathology and Physiology." A few years ago he presented the entire collection of some 1,500 volumes to the Iowa Methodist Hospital to found the medical library of this institution.

An early devotee of aviation he made many transcontinental trips by air. One of his first trips to the Pacific Coast was made in a small mail plane with only one other passenger, his friend Dr. Thomas Burcham. The return trip was made by auto, and it was reported the speed often equalled that of the airplane flying overhead. This experience was recorded in a small monograph entitled "Tom and Me" with graphic illustrations by the well-known cartoonist, Ding (J. N. Darling).

Of the many honors that came to Dr. Fay, none perhaps gave him greater pleasure than his election, forty years after graduation, by his Alma Mater, the University of Illinois, to alumni membership in Alpha Omega Alpha, honor medical society. The exercises were held in International House, University of Chicago.

A staunch believer in medical society affiliation and its important place in the advancement of medical knowledge, Dr. Fay was honored by being chosen president of the Polk County and Iowa State Medical Societies and vice president of the Western Surgical Association. He served continuously as chairman of the Board of Trustees of the Iowa State Medical Society from the time of his election May 15, 1925. He was a Fellow of the American Medical Association throughout his entire professional career, a Fellow of the American College of Surgeons (Founders Group) and a Diplomate on the American Board of Surgery. He also held membership in the American Association of Industrial Physicians and Surgeons and the American Association of Railway Surgeons.

Dr. Fay is survived by his wife and two daughters—Mrs. Helen Purdy of Des Moines (wife of Major William Purdy, serving with the Army Medical Corps in the European Theater) and Mrs. Betty Blake of San Antonio, Texas (wife of Ansel Blake)—and four grandchildren.

Oliver Fay had a sound philosophy of life, a refreshing mixture of liberal and conservative impulses, and above all was a lovable, generous, and friendly human being who cast a bit of cheer all along Life's pathway and whose like we shall not meet soon again.

—Walter L. Bierring, M.D.

MEDICAL HISTORY OF WAPELLO COUNTY

CLYDE A. HENRY, M.D., Farson

Part IV

(Continued from last month)

Dr. A. R. Weir was born about 1829, and died at his home in Agency City in 1879. He was graduated from the College of Physicians and Surgeons at Keokuk, Iowa, with the class of 1851. Soon after graduation he located in Agency City, where he successfully engaged in the practice of medicine until his death occurred at the early age of fifty. He was one of the founders of the Wapello County Medical Society and the Des Moines Valley Medical Association. He was also

a member of the Iowa State Medical Society and the American Medical Association. Although his name appears frequently in the medical records of those days, very little specific data is available. The only known picture of Dr. Weir, which appears in the early pioneer group picture, was obtained from Mrs. T. W. Foster, Des Moines, Iowa. The only two relatives living, according to Mrs. Foster, are two grandchildren, Thomas and Carroll Foster.

Dr. William Gutch was born in Wiltshire, England, in 1824. His father operated a pin and needle factory, exporting most of its products to the United States. He left England at the age of sixteen, and for eighteen months served as clerk for a plank road construction company at St. Thomas, Ontario, Canada. In 1842 he came to Territorial Iowa, and was one of the first group of settlers to locate in the "New Purchase," which was made available for settlement May 1, 1843. They called their village Princeton, and the new county Kishkikosh. Both town and county names were changed, however, Princeton to Albia, and Kishkikosh to the County of Monroe. But, before the permanent organization of town and county were effected, young Gutch became the first school teacher in the county, conducting his classes in a log house located a short distance northeast of the present city limits of Albia. He lived with the Boggs family while teaching school, and practiced medicine at odd times, there being no physician in the vicinity.

During the winter of 1846-47 he completed a sixteen-week course in the Medical Department of Western Reserve University in Cleveland, Ohio. Here he met several famous medical men, and formed a lifelong friendship with one of his classmates, Nathan S. Davis, Sr. He came back to Iowa and practiced medicine until 1853, when he returned to his Alma Mater to graduate with the class of 1854. Having received his M.D. degree, he opened an office at Blakesburg, Wapello County, Iowa, and continued in practice there until 1878. He then moved to Albia, where he continued in practice to the day of his death, which occurred in 1908 at the age of eighty-four years.

Samuel Cohen, a prominent attorney, in "A Bit of History" published in 1889 in a local newspaper, states that Dr. Gutch rode at least 75,000 miles on horseback over trails and primitive country lanes during the first forty-seven years of his practice. He kept abreast of the times, however, and was an active member of his county society, the Des Moines Valley Medical Association, the Iowa State Medical Society and the American Medical Association. In addition to visiting vari-

ous clinics, he took a postgraduate course in medicine and surgery in England in 1866, and again in 1872. He was the first Wapello County physician to hold office in the Iowa State Medical Society, having been elected to the Board of Censors in the early years of his practice at Blakesburg.

Two members of his family are carrying on in the chosen field of this worthy pioneer: a son, Dr. T. E. Gutch of Albia, Iowa, and a grandson, Dr. R. C. Gutch of Chariton, Iowa, who is the present councilor of the Ninth district of the Iowa State Medical Society.

Dr. Francis Marion McCrea was born October 1, 1848, in Montgomery County, Indiana, the son of John L. and Delila (Wilson) McCrea. When he was two years old his parents came west in a covered wagon, locating in Pella, Iowa, where his father engaged in the practice of dentistry for many years.

He obtained his early education in the Pella schools, serving, between times, an apprenticeship in his father's dental office. He did not complete his dental studies, however, but engaged in the study of medicine, receiving his degree of Doctor of Medicine from the College of Physicians and Surgeons at Keokuk in February, 1874. He located in Albia during the same year, associating himself in practice with Dr. Lambert. In 1876 he moved to Eddyville, Iowa, where, with the exception of a short time spent in Omaha, he successfully engaged in the practice of medicine until the infirmities of old age compelled him to retire. To many of the old settlers of the tri-county area surrounding Eddyville, he was a hero of the horse-and-buggy days, whose helpful ministrations brought them cheer and comfort in hours of darkness and distress.

He was married April 24, 1895, to Miss Eppie S. Wilie, daughter of James T. and Mary J. Wilie, pioneer residents of Mahaska County, who survives him. Mrs. McCrea, after her marriage, studied medicine, receiving her medical degree from Barnes Medical College, St. Louis, Missouri, and for over a third of a century was his office partner in the practice of medicine and surgery.

Dr. McCrea kept abreast of the swift advances of his profession, holding diplomas from the Barnes Medical College, Class of 1898, and from the medical department of the Iowa State University, Class of 1926, as well as certificates for postgraduate work in the New York Poly Clinic. He was a firm believer in organized medicine, and maintained membership in the Wapello County Medical Society, the Des Moines Valley Medical

Association, the Iowa State Medical Society, and the American Medical Association.

Dr. Francis Marion McCrea died at his home in Eddyville November 6, 1936, at the age of eighty-eight years. His wife, Dr. Eppie S. McCrea, survives him. They had no children.

Dr. Alonson B. Comstock was born March 1, 1818, in Franklin County, Ohio. He was educated in Columbus, Ohio. In 1843 he came to Wapello County and settled on the farm where he lived and died. He was a public-spirited man, took an active part in civic affairs and was elected the first representative from Wapello County to the State Legislature, which met in Iowa City November 30, 1846, a few weeks before Iowa became a state. Although elected on a non-partisan ticket, he later became a Republican.

Dr. Comstock was active in medical affairs in Wapello County until 1865, when he was compelled to retire from practice on account of his hearing. He continued to operate his farm, however, until his death occurred September 4, 1890. He is buried in a private cemetery near the house on the farm he owned.

Dr. James Nosler was born in West Virginia and reared in eastern Tennessee, where he obtained his early education. When a young man he moved to Indiana, where he read medicine. After completing his medical course, he practiced in Putnam County, Indiana, until May, 1846. Later in the same year he came to Wapello County with his family, locating in Eddyville. He was a shrewd business man, as well as a successful physician, and became a leader in civic and business affairs of the community. He helped to organize the first public school in Eddyville, and served as one of its directors. In 1855-56 he was president of the Eddyville Bridge Company, a corporation composed of local business men, that built the first bridge at a contract price of \$30,000 across the Des Moines River in that vicinity. He also served on the committee that, for years, endeavored to make the Des Moines River navigable to Ft. Des Moines.

Dr. Nosler was married twice, first in Indiana to Jemima Moore, a native of Kentucky. Seven children were born to them. After the death of his first wife, he married Sarah Nelson. There were no children by this marriage.

Dr. Nosler was a Whig, in politics, and later a staunch Republican. While living in Indiana, he served a term as sheriff of Putnam County. He died at his home in Eddyville in 1881, and is buried in Highland cemetery at that place.

(To be continued)

WOMAN'S AUXILIARY NEWS

(Continued from page 313)

president, Mrs. M. M. Shaw of Madrid, vice president, Mrs. W. H. Longworth of Boone, secretary, and Mrs. W. G. Laidley of Ogden, treasurer.

BUENA VISTA COUNTY

The Buena Vista County Auxiliary met in the home of the president, Mrs. M. A. Armstrong of Newell, on May 23 with seven members present. The group voted to pay dues of one dollar per member. The president appointed a *Hygeia* Committee composed of Mrs. P. W. Brecher and Mrs. R. E. Mailliard. Mrs. Mailliard was also appointed chairman of Publicity. Following a social hour, refreshments were served.

The next meeting is scheduled to be held in Storm Lake in September.

Mrs. J. W. Morrison, Secretary.

DALLAS-GUTHRIE AUXILIARY

The Woman's Auxiliary to the Dallas-Guthrie Medical Society met with the doctors for a luncheon at the Presbyterian Church in Panora April 19. Following luncheon a meeting was held with seven members present. The vice president, Mrs. A. J. Ross of Perry, presided in the absence of the president, Mrs. K. M. Chapler.

Mrs. E. J. Butterfield discussed new discoveries in medicine, referring to an article in *Time* magazine which had to do with the differences between the two sexes. She also discussed tropical diseases, poliomyelitis, and Alcoholics Anonymous.

Mrs. C. E. Porter discussed an article which appeared in *The Cosmopolitan*, "Third Rate Medicine for First Rate Men," by A. Q. Maisel. She urged members to write their congressmen in regard to the Philbin Bill which calls for an investigation of Veterans Hospitals.

Mrs. A. J. Ross will provide the program for the July meeting in Woodward.

Mrs. H. W. Smith, Secretary.

DUBUQUE COUNTY

The spring meeting of the Auxiliary to the Dubuque County Medical Society, a bridge luncheon, marked the election of officers for the year 1945. Officers elected were Mrs. William A. Henneger, president; Mrs. John C. Pickard, vice-president; Mrs. Charles J. Schueller, secretary-treasurer; and Mrs. Walter Cary, historian.

A vote of thanks was recorded by Mrs. Clarence Darrow, secretary pro tem, for the retiring officers, who were Mrs. Henry M. Pahlas, president; Mrs. Pickard, vice-president and Mrs. Frederick Fuerste, secretary. An annual report and treasurer's statement was submitted, as well as reports on the Auxiliary's successful campaign for subscriptions to *Hygeia* and on a donation of cookies to the local U.S.O. Headed by Mrs. James W. Paulus, the drive collected from Auxiliary members over fifty-nine dozen cookies for the service center.

An out-of-town member and one guest were welcomed by the active members at the meeting.

Mrs. Charles J. Schueller, Secretary.

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

DOCTORS AT WAR—Edited by Morris Fishbein, M.D., Editor of The Journal of the American Medical Association and of Hygeia, The Health Magazine; Chief Editor of War Medicine; Chairman of the Committee on Information of the Division of Medical Sciences of the National Research Council. E. P. Dutton & Company, Inc., New York, 1945. Price, \$5.00.

THE 1944 YEAR BOOK OF INDUSTRIAL AND ORTHOPEDIC SURGERY—Edited by Charles F. Painter, M.D., Orthopedic Surgeon to the Massachusetts Women's Hospital and Beth Israel Hospital, Boston. The Year Book Publishers, Chicago, 1945. Price, \$3.00.

CLINICAL ROENTGENOLOGY OF THE DIGESTIVE TRACT—By Maurice Feldman, M.D., Assistant Professor of Gastroenterology, University of Maryland, Assistant in Gastroenterology, Mercy Hospital, Consulting Roentgenologist, Sinai Hospital. Second edition. The Williams and Wilkins Company, Baltimore, 1945. Price, \$7.00.

MALARIA IN THE UPPER MISSISSIPPI VALLEY, 1760-1900—By Erwin H. Ackerknecht. Supplements to the Bulletin of the History of Medicine, No. 4. The Johns Hopkins Press, Baltimore, 1945. Price, \$2.00.

PENICILLIN THERAPY, Including Tyrothricin and Other Antibiotic Therapy—By John A. Kolmer, M.D., Professor of Medicine in the School of Medicine and the School of Dentistry, Temple University; Director of the Research Institute of Cutaneous Medicine; Formerly Professor of Pathology and Bacteriology, Graduate School of Medicine, University of Pennsylvania. D. Appleton-Century Company, New York, 1945. Price, \$5.00.

PENICILLIN AND OTHER ANTIBIOTIC AGENTS—By Wallace E. Herrell, M.D., Assistant Professor of Medicine, the Mayo Foundation, University of Minnesota; Consultant in Medicine, Mayo Clinic, Rochester, Minnesota. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

APPROVED LABORATORY TECHNIC—By John A. Kolmer, M.D., Professor of Medicine in the School of Medicine and the School of Dentistry, Temple University, Director of the Research Institute of Cutaneous Medicine; and FRED BOERNER, V.M.D., Associate Professor of Clinical Bacteriology, Graduate School of Medicine, and Assistant Professor of Bacteriology, School of Medicine, University of Pennsylvania, Bacteriologist, Graduate Hospital, Philadelphia. Fourth edition. D. Appleton-Century Company, Inc., New York, 1945. Price, \$10.00.

BOOK REVIEWS

INTERNAL MEDICINE

Its Theory and Practice

Edited by John H. Musser, M.D., Professor of Medicine in The Tulane University of Louisiana School of Medicine; Senior Visiting Physician to the Charity Hospital, New Orleans, Louisiana. Fourth edition, thoroughly revised. Lea & Febiger, Philadelphia, 1945. Price, \$10.00.

This standard textbook has been written by thirty-three contributors, each an authority in a special field of internal medicine. It is designed to give the practitioner a reference volume which provides a concise concept of each condition and the modern method of treatment. Following the presentation of each disease entity there is a bibliography of pertinent references in medical literature for more detailed information.

The newer therapies with the sulfonamides, penicillin, thio-uracil, etc., are incorporated in the text so that it is fully in keeping with modern therapeutics. The chapters on diseases due to Metazoa and Protozoa and Rickettsia are valuable contributions.

This is an excellent book. It provides the reader with accurate information in a clear and concise manner from authoritative sources. The publishers are to be congratulated upon the excellent format of the text. This is a valuable addition to the physician's library.

D. H. K.

THE 1944 YEAR BOOK OF GENERAL THERAPEUTICS

Edited by Oscar W. Bethea, M.D., Professor of Clinical Medicine, Tulane University School of Medicine (retired); Senior in

Medicine, Southern Baptist Hospital; Consulting Physician, Charity Hospital. The Year Book Publishers, Chicago, 1945. Price, \$3.00.

This Year Book is full of essential information and practical facts; it serves to bring one up to date on many aspects of therapy. It is delightfully condensed and presents the collective views of many reliable authors and research workers.

Of particular interest and value is the information gained from the present war experiences, including the use of antimalarials and antisypilitics. There is an excellent summary and cross-section of medical literature covering the sulfonamides and penicillin during the past year. Some of the other topics covered are: transfusions and infusions, including a well defined explanation of the Rh factor, antiseptics and germicides, management of burns, antibodies and antigens, hormones, vitamins, anesthetics, sedatives, the use of thiouracil, and a summary of drugs acting especially on the heart and blood vessels.

The "jacket quiz" challenges one's knowledge and immediately stimulates interest in the contents. This little book with its wealth of practical information is certainly well worth its cost.

H. G. M.

MEDICAL GYNECOLOGY

By James C. Janney, M.D., Assistant Professor of Gynecology, Boston University School of Medicine, Boston, Massachusetts. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

This is an interesting volume which presents gynecology in a didactic fashion and yet fulfills its purpose nicely by giving a practical review of office gynecology. The author's aims are "to aid the stu-

dent in correlating the didactic lectures with the experience obtained in the gynecologic clinic, and to provide refresher material for the general practitioner." He has done a good job.

The volume approaches the subject from the angle of the patient's complaints, the physical findings of the patient, tests and special examinations, and gynecologic treatments. Another section which is well worthwhile is that on sociomedical problems, covering contraception, preparation for marriage, and marital maladjustments. The author points out that this field has been grossly neglected by the medical profession, largely because of a lack of adequate training in presenting this knowledge to patients desiring it.

One of the excellent features is that of tabulating physiologic and pathologic causes with differential diagnostic points, so that they can be easily compared. There is a good evaluation of new and used instruments and methods, so that the reader may choose or discard them as he sees fit. In the section on the use of endocrines the author has explained the main fundamentals in a clear fashion.

Of special mention should be the fact that retroversion of the uterus may be congenital as well as secondary. Keeping this in mind, the gynecologist will not attempt to treat surgically those conditions which are relatively asymptomatic as in the cases of congenital retroversion.

In approaching the subject from the angle of symptomatology, physical findings, and treatment, the author repeats the important points many times. This does much to impress these points on the mind of the reader so that the total result is the retention of this valuable information.

C. D. E.

PLASTER OF PARIS TECHNIC

By Edwin O. Geckeler, M.D., Associate Professor of Orthopedic Surgery, and Chief of the Fracture Service, Hahnemann Medical College and Hospital, Philadelphia. The Williams & Wilkins Company, Baltimore, 1944. Price, \$3.00.

The articles in this short book have filled a long felt want to the subject. The technic of the plaster cast has been a subject which most of us were supposed to know or to have grown up with, and few orthopedic texts or texts on fracture treatment in general have more than two or three pages devoted to this important subject. This volume goes into detail about the cast, the different types of casts and how they should be handled and their methods of application. In fact it is a general resume of the entire subject. There could be a little more detail given for orderlies and nurses regarding the manner of handling casts in the first few hours after their application and also regarding the nursing care of patients wearing casts.

In spite of this, however, the book is a valuable one and should be in every hospital library. It would be of great use to the intern and resident.

A. F. O'D.

THE 1944 YEAR BOOK OF PHYSICAL MEDICINE

Edited by Richard Kovacs, M.D., Professor of Physical Therapy, New York Polyclinic Medical School and Hospital; Attending Physical Therapist, Manhattan State, Columbus and West Side Hospitals. The Year Book Publishers, Chicago, 1944. Price, \$3.00.

The field of physical medicine has become of such importance in the practice of medicine that the title of this volume has been changed from Physical Therapy to the more inclusive title of Physical Medicine. In keeping with this expansion, the author has included abstracts of many subjects which have not appeared before. These abstracts will be found to be concise but they include all pertinent facts, thus enabling the reader to obtain the desired information with the least effort.

The book will be found worthwhile to all physicians and physiotherapists.

L. M. O.

A TEXTBOOK OF OPHTHALMOLOGY

By Sanford R. Gifford, M.D., Formerly Professor of Ophthalmology, Northwestern University Medical School, Chicago; Formerly Attending Ophthalmologist, Passavant Memorial and Cook County Hospitals. Third edition, revised. W. B. Saunders Company, 1945. Price, \$4.00.

Dr. Gifford's third edition of "A Textbook of Ophthalmology" should rank high in medical schools for teaching purposes and also as an excellent reference text in schools of nursing.

The volume gives all the essential facts of modern ophthalmology. It starts with the methods of examining the eyes—externally, ophthalmoscopically, and other special objective methods. The chapter on errors of refraction is very thorough. The author then discusses the diseases of the various parts of the eye and its adnexa, giving an introductory paragraph on the anatomy of each part so that it will be easier to understand. There is also a good chapter on the disturbances of ocular motility. The book is concluded with chapters on injuries to the globe, medicines, and on the eye in relation to general diseases.

The text is illustrated with 215 illustrations and 13 colored plates for a better comprehension of the discussions. The plates are better than those in the first edition and there are a few more. There are also new sections on ptosis, contact lenses, cyclo-diathermy, and epidemic keratoconjunctivitis.

The treatise makes an ideal text for students, and the reviewer believes it adequately meets the demands of the student. It will be a handy reference for the practitioner as well as the specialist, and should be in the library of all practitioners who do any treating of the eyes.

H. A. B.

SOCIETY PROCEEDINGS

Black Hawk County

The Black Hawk County Medical Society held its regular monthly meeting in Waterloo at Black's Tea Room Tuesday, June 5, at 6:30 p. m. The guest speaker of the evening was Major J. J. Brennan of Waterloo and the United States Army Medical Corps, who discussed his experiences as a prisoner of the Japanese in the Philippines.

S. A. Barrett, M.D., Secretary

Henry County

Members of the Henry County Medical Society, nurses from Henry County Hospital, and some doctors from Des Moines County were guests of Dr. Ernest J. Lessenger and Dr. Frank R. Mehler of New London Friday evening, May 25, at a fried chicken dinner served at the New London Country Club.

Linn County

At the annual meeting of the Linn County Medical Society held in Cedar Rapids, Wednesday evening, May 23, Dr. Charles S. Day was installed as president, having been named president-elect a year ago. Officers elected for the coming year were Dr. Morgan J. Foster, president-elect; Dr. Walter M. Skallerup, vice president; Dr. Don S. Challed, secretary; Dr. James R. Flynn, treasurer; Drs. Thomas F. Suchomel and John K. von Lackum, delegates; and Drs. Philip I. Crew and Callistus H. Stark, alternates. All officers are of Cedar Rapids except Dr. Skallerup who is located in Walker and Dr. Crew from Marion.

Marshall County

The Marshall County Medical Society held a dinner meeting in Marshalltown at Hotel Tallcorn Tuesday evening, June 5. The scientific program consisted of an address on Amebiasis by Alonzo L. Jenks, Jr., M.D., of Des Moines.

Sac County

Members of the Sac County Medical Society met in Sac City at Hotel Park Thursday evening, June 7. John H. Stalford, M.D., of Sac City presented a paper on The Subconscious Mind.

PERSONAL MENTION

Captain Holger M. Andersen has received an honorable discharge from the Army Medical Corps and plans to resume his practice of medicine in Strawberry Point. Captain Andersen has been in military service for the past two years.

Captain Rex I. Smith has returned to Waterloo after receiving a medical discharge from the Medical Corps of the U. S. Army Air Forces. Captain Smith has been on active duty since September, 1942.

DEATH NOTICES

Carney, Roscoe Patrick, of Davenport, aged sixty, died June 12 in St. Louis following a heart attack. He was graduated in 1911 from St. Louis University School of Medicine, and at the time of his death was a member of the Scott County and Iowa State Medical Societies.

Fay, Oliver James, of Des Moines, aged seventy, died June 2 following a brief illness. He was graduated in 1902 from the University of Illinois College of Medicine, and at the time of his death was a member of the Polk County and Iowa State Medical Societies. A more complete obituary will be found in the History of Medicine section of this issue.

Hecker, Friedrich Alexander, of Ottumwa, aged sixty-six, died suddenly June 3 of a heart attack. He was graduated in 1913 from the University of Kansas School of Medicine, and at the time of his death was a member of the Wapello County and Iowa State Medical Societies.

Keeffe, Patrick Eugene, of Sioux City, aged fifty-nine, died June 8 in Ann Arbor, Michigan, after a brief illness. He was graduated in 1910 from Jefferson Medical College of Philadelphia, and at the time of his death was a member of the Woodbury County and Iowa State Medical Societies.

McQuillen, Charles Walsh, of Charles City, aged fifty-eight, died May 30 after an illness of several years following a heart attack. He was graduated in 1913 from the State University of Iowa College of Medicine, and at the time of his death was a member of the Floyd County and Iowa State Medical Societies.

Thomas, Clarence Irouth, of Guthrie Center, aged sixty-three, died suddenly May 28 of a heart attack. He was graduated in 1905 from the State University of Iowa College of Medicine, and at the time of his death was a life member of the Dallas-Guthrie and Iowa State Medical Societies.

Morden, Richard Paul, of Des Moines, aged thirty-nine, died May 18 in England of a brain hemorrhage, while serving as a Captain in the Medical Corps of the Army of the United States. He was graduated in 1934 from the State University of Iowa College of Medicine, and at the time of his death was a member of the Polk County and Iowa State Medical Societies.

The JOURNAL

of the

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VOL. XXXV

DES MOINES, IOWA, AUGUST, 1945

No. 8

CALCIUM PHOSPHATE RENAL LITHIASIS

Important Aspects in Symptomatology, Diagnosis and Treatment

RUBIN H. FLOCKS, M.D., Iowa City

Calcium phosphate renal lithiasis is becoming more important due to the increasing incidence of war injuries which are associated with this condition. The incidence of calcium phosphate renal lithiasis in patients who are immobilized for fracture of the extremities and wounds of the extremities varies between 5 and 15 per cent, depending upon whether instrumentation of the urinary tract is necessary and whether urinary tract paralysis takes place. Because of the increasing incidence of calcium phosphate stone, particularly in association with these conditions and because the symptomatology, diagnosis, and treatment is somewhat different than in other types of renal lithiasis, especially in respect to symptomatology and treatment in early cases, it is the purpose of this report to emphasize certain aspects in the diagnosis and treatment of early calcium renal lithiasis.

Calcium phosphate stone in contrast to the other types of renal stones is usually rapid growing and relatively symptomless, so that in many cases rather extensive, irreparable renal damage occurs before the diagnosis of renal stone has been made. In addition to the destruction of renal tissue and consequent impairment of renal function there is a distortion of the urinary passageway so that a free flow of urine cannot occur even if the stone has been removed. Thus residual urine is present, and infection and new stone formation are common sequelae.

How can an early diagnosis be made so that these dangerous sequelae can be prevented?

The ordinary symptoms of renal stone are listed as follows: (1) pain; (2) hematuria; (3) pyuria;

and (4) general evidence of urinary tract infection. None of these symptoms may be present to any great extent except pyuria, and even this may not be marked in many of these cases until extensive damage has taken place. This is well illustrated by such cases as in Fig. 1.

Since the ordinary symptoms of renal stone will not be of much help in the diagnosis of calcium phosphate lithiasis, it is imperative, first, to recognize what conditions predispose to this type of urolithiasis and, second, to institute complete urologic and radiologic examinations in patients who have had these conditions. This is especially true if, as it is necessary, we are to make a diagnosis in the early stages. In Table I, I have outlined the most common conditions which predispose to calcium urolithiasis. Fractures of the long bone,

TABLE I
CONDITIONS PREDISPOSING TO CALCIUM PHOSPHATE UROLITHIASIS

1. Disease producing prolonged immobilization of the body:
 - a. Fractures of the spine or extremities associated with prolonged immobilization of large bones.
 - b. Chronic osteomyelitis.
 - c. Chronic arthritis, or other bone joint disease producing immobilization of large portions of the skeleton.
 - d. Neurologic damage as a result of trauma or disease producing prolonged immobilization.
 - e. Chronic visceral disease requiring prolonged recumbency.
2. Changes in the urinary organs:
 - a. Congenital anomalies associated with stasis.
 - b. Acquired obstructions—stricture of urethra, etc.
 - c. Paralysis of urinary passageway.
 - d. Introduction of infection into urinary tract.
 - e. Foreign body in urinary passageway.
3. Endocrinopathies:
 - a. Hyperparathyroidism.
 - b. Hyperthyroidism?
 - c. Hyperpituitary disease?
4. Focus of infection elsewhere in body?
5. Vitamin deficiency or excess:
 - a. Vitamin A deficiency?
 - b. Vitamin D excess.
6. Metabolic abnormalities:
 - a. Idiopathic hypercalcinuria.
 - b. Changes in colloids?

Note: Conditions with question mark are included mainly upon a theoretic basis. Others are on a clinical basis.

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injuries of the urinary tract, urinary tract paralysis, urinary tract instrumentation, and urinary tract infection are outstanding in their predisposition toward this type of urolithiasis. Since symptoms pointing to the onset of urinary lithiasis usually do not take place in the early stage, there is only one way by which an early diagnosis of such occurrence can be made, and that is by means of a complete radiologic examination of the urinary tract. The importance of this examination and repeated examinations of this type in patients who

have had, or are having, conditions outlined in Table I cannot be overemphasized.

The treatment of this type of urolithiasis, of course, depends upon the situation which one finds in the individual case. This is outlined in Table II. It is worthy of emphasis that if this situation be recognized early, before renal damage has occurred and large firm calculi are present, tissue damage and extensive renal operations can be avoided by irrigation of the kidney pelvis with acetic acid, citric acid, and malic acid solutions

TABLE II

PREVENTIVE TREATMENT OF CALCIUM PHOSPHATE UROLITHIASIS IN PATIENTS WHO ARE EXTENSIVELY IMMOBILIZED OVER LONG PERIODS OF TIME

<i>Measures</i>	<i>Accomplishments</i>	<i>Remarks</i>
1. <i>Maintenance of Large Fluid Output</i>	a. Counteracts stasis by producing a steady flow of urine. b. Diluted calcium concentration especially important during period of hypercalcinuria (first 6 to 12 weeks of immobilization). c. Minimized likelihood of infection. d. Washes out debris and small calcium precipitates.	a. Measure intake and output carefully. Remember in cases with neurologic involvement that residual urine may cause inaccuracy in output measurement.
2. <i>Control of Diet</i> High Vitamin A and B acid ash diet usually used.	a. High Vitamin A and B improve epithelial nutrition. b. Increase acidity of urine. Calcium phosphate is more soluble in an acid than in an alkaline urine.	a. Check urinary pH daily with nitrazine paper. b. Discontinue acid ash diet if urine remains alkaline due to any cause such as infection with urea-splitting organisms.
3. <i>Control of Stasis</i> a. Movement of patient. b. Provision of adequate drainage by catheter or surgery if necessary. c. Maintenance of a large fluid output.	a. Makes sure that no portion of urinary tract is dependent or undrained for too long a time. b. Minimize infection. c. The use of a catheter makes possible irrigation of pelvis or ureter with special solutions, such as citric acid and malic acid solutions.	
4. <i>Control of Infection</i> a. Maintenance of large fluid output. b. Adequate drainage. c. Chemotherapy: (1) Sulfacetimide 60 grains daily in drug of choice. (2) Sodium sulfathiazole 60 grains daily. (3) Other sulfonamide. (4) Neoursphenamine 0.3 gram two times weekly in some Staph. infections. 5. Penicillin.	a. Decreases particles in urine (pus and epithelial debris which may act as nuclei for stone formation). b. Infection with urea-splitting organism produces alkaline urine which causes precipitation of calcium phosphate.	a. Watch urine pH with nitrazine paper. b. Study centrifuged urine specimen daily for pus cells.
5. <i>Continuation of Treatment for 3 months after immobilization has ceased.</i>	Removes any small precipitation which may have formed during period of stasis and hypercalcinuria.	
6. <i>Frequent Radiographic check-up examinations during illness and every 3 months for one year after immobilization has ceased.</i>	This is very important. Small precipitates may not be visualized in early urograms but may be visualized later after they have grown. Many stones (especially in patients with neurologic lesions) may be silent for years and thus produce irreparable renal damage unless they are visualized by x-ray examination.	

Note: Henline has shown that the emptying time of the renal pelvis is greatly increased by a small urinary output and decreased by a large fluid output (Lowsley and Kerwin—Clinical Urology).

followed by breaking up and evacuation of the small stones. This is an important addition to our armamentarium in the treatment of calcium phosphate urolithiasis which is of use only in those cases where the condition is recognized early. The exact technic of irrigation and breaking up of these phosphatic calculi varies with the individual situation. In some patients a ureteral catheter is passed up to the kidney pelvis and the solution is permitted to drip in constantly during the day, the overflow from the renal pelvis flowing out down the ureter alongside the ureteral catheter. This is kept up for many, many days. In other cases, simple hand irrigations two or three or four or five times a day, through a ureteral catheter which is left indwelling, can be carried out. In other cases it is necessary to do a nephrostomy, insert a tube and use the drip method or the hand irrigation method through this nephrostomy tube. Some patients tolerate one type of solution better than another and it is my personal opinion that the irrigation is as important as the actual dissolving substance used, since it is the mechanical breaking up of the stone which in many cases does the trick. This irrigation technic has been extremely useful in many cases where extensive calcium phosphate urolithiasis was present.

SUMMARY

(1) Calcium phosphate renal lithiasis is common and frequently produces extensive, irrepa-

TABLE III
TREATMENT OF PATIENTS WITH CALCIUM PHOSPHATE RENAL LITHIASIS

- 1. All measures outlined under Preventive Treatment of Calcium Phosphate Urolithiasis in Table II.
- 2. Institution of Adequate Drainage:
 - a. Urethral catheterization.
 - b. Ureteral catheterization.
 - c. Nephrostomy.
 - d. Pyelostomy.
- 3. Irrigation of urinary passageway with antiseptic and "dissolving" solutions to control infections and dissolve and remove fragments of stone. Valuable solutions are: 0.8 per cent sulfanilamide solution, 0.25 per cent acetic acid solution, *Citric acid solution in 1/20000 zephiran. †Malic acid solution in 1/20000 zephiran.
- 4. Avoidance of pseudorecurrence: When removing multiple stones or a branching stone, x-ray check-up during the operation is of great value in preventing a small stone from being left behind.
- 5. Calicectomy and other operative procedures on urinary tract to correct acquired or congenital urinary stasis.
- 6. Surgical lithotomy, or nephrectomy.

*Citric acid (monohydrus), 32.3 Grams
Magnesium oxide (anhydrous), 3.8 Grams
Sodium carbonate (anhydrous), 4.4 Grams
1/20000 aqueous zephiran qs to 1000 cc
†Malic acid, 32.3 Grams
Magnesium oxide (anhydrous), 3.8 Grams
Sodium carbonate (anhydrous), 4.4 Grams
1/20000 aqueous zephiran to 1000 cc

vable damage to the renal tissue and to the urinary passageway. It is common in those conditions associated with war injuries.

(2) The outstanding characteristic symptomatology of calcium phosphate renal lithiasis is the absence of symptoms. It usually causes no symptoms until extensive renal damage is present. A knowledge of predisposing conditions is important if early diagnosis is to be made.

(3) Early diagnosis can be made only by repeated urologic and radiologic examination in patients who have had predisposing conditions.

(4) Instrumental irrigation and treatment with acid solutions is of great value in early cases of calcium phosphate renal lithiasis.

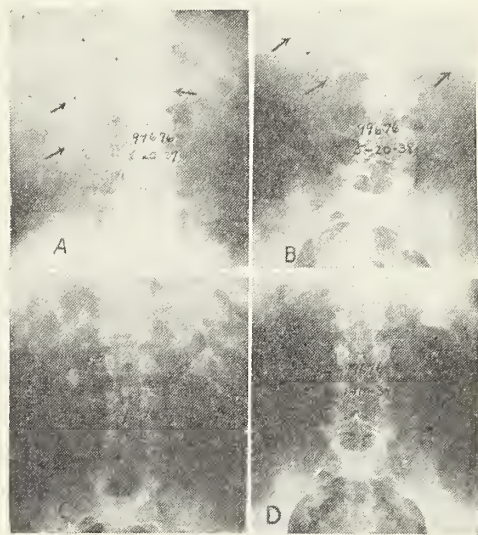


FIGURE 1

Case Illustrating:

(1) Silent stones appearing in patient with fracture of the spine with cord injury.

(2) Diagnosis could have been made over one and one-half years earlier if looked for.

(3) Symptoms and signs, except radiographic signs, did not appear until two years and five months after injury—emphasizing the need for early and repeated radiographic examinations.

A white male fifty-three years of age suffered a fracture of the first lumbar vertebra with cord injury in January, 1936. The bladder was at first flaccid, then spastic. Treatment by hyperextension resulted in the rapid improvement of the neurologic condition. By April, 1936, the patient had regained control of the bowels and bladder and was able to get up to a certain extent.

During January of 1936 it was noted that the urine was loaded with crystals and by January 26, 1936, it was also infected. It was alkaline throughout this period. No effort was made, apparently, to correct this condition.

He was next seen in 1937 for a brace fitting. He

had been steadily improving. His bladder function was excellent. His urine was said to be clear but was not examined microscopically. Film A, taken February 20, 1937, approximately one year and one month after the injury, for spine check-up, shows definite stone shadows in the region of the right kidney. These were not noted in the history and not taken into account in the treatment of the patient.

Early in February, 1938, one year after Film A was made, he developed spontaneous drainage from the perinephritic abscess on the right side. On May 20, 1938, two years and five months after the injury, Films B and C were made. These show bilateral nephrolithiasis with no function in the right kidney and evidence of a perinephritic abscess on the right. On June 14, 1938, the right peri-renal abscess was drained. On August 12, 1938, the right kidney was removed. These procedures produced great improvement in the patient's general condition. However, proteus infection in the left kidney could not be cleared and the stone in that left kidney gradually grew larger, as illustrated in Film D. Finally on January 16, 1939, a left pelviolithotomy was done. Following this operation, the patient was placed on forced fluids, sulfanilamide for one week out of every four, and a low calcium diet.

Check-up four months later, on May 19, 1939, showed the urine to be clear and the urinary tract negative for stones. He has continued to have no evidence of renal stone and the infection has not reappeared to the present time.

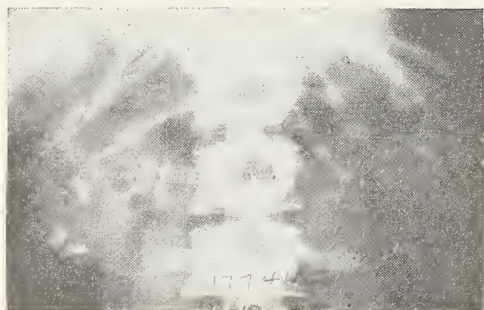


FIGURE 2

Case Illustrating: Silent stone appearing in both kidneys in a patient with a fracture of the femur. The first signs and symptoms did not appear until five months after the original injury.

A white male eighteen years of age suffered a fracture of the midportion of the right femur in December, 1943. Open reduction was carried out without good results. The fracture remained ununited and the patient was in bed for five months. He was admitted to the University Hospital February 16, 1944, for open reduction of the femur. His urine was reported negative.

On April 11, 1944, while being prepared for the operation on the femur, he began to have an aching pain in the right kidney region. The urine became grossly bloody. X-ray examination of the kidney

was then performed and this is shown in Figure 2. It revealed bilateral renal lithiasis.

The patient was given conservative therapy: acid ash diet, forced fluids, change of position, and irrigations of the kidney pelvis with citric acid and acetic acid solutions every five days. On this regimen the calculi completely disappeared from both sides by June 1, 1944.

If this therapy had not been carried out, the patient might have passed these stones in the form of gravel after he had been permitted up, but they might also have gone on to form large staghorn calculi. See Fig. 1.

BRONCHIAL ASTHMA

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Bronchial asthma is a term used to designate a form of dyspnea due primarily to spasm of the bronchial musculature and to accumulations of mucus within the bronchial lumen.

Bronchial asthma has been divided into numerous classifications. The most satisfactory one to date in my estimation is the one which divides this condition into extrinsic and intrinsic types. The former type refers to asthma due to specific allergens such as pollen or dust, and can usually be corrected by adequate specific desensitization. These asthmatic attacks are relieved symptomatically by simple measures. The attacks are relatively short, and removal of the patient from the harmful environment, if necessary, avoids further attacks until the patient again contacts the detrimental allergen or until specific and adequate desensitization can be performed. Roughly, 80 per cent of all asthma is of this type.

The intrinsic form of asthma has no known etiology, although specific factors such as weather, emotion, and infection will definitely provoke or aggravate an attack. This type appears usually after forty years of age, is often intractable, and frequently ends in severe emphysema and death within a relatively short time.

The scope of this paper does not permit a detailed discussion of both types of asthma. It is, therefore, my intent to review briefly some of the fundamentals common to both types and to emphasize the more serious but less understood form referred to as intrinsic asthma.

Normal respiration takes place primarily by the contraction and relaxation of the intercostal muscles and the diaphragm. It is primarily thoracic in women and abdominal in men. In quiet respiration, the active phase is during inspiration and is due to the contraction of the external intercostal muscles and the diaphragm, and expiration is fundamentally passive in nature. In forced respir-

ation both phases are active, but inspiration is the stronger. Inspiration results from contraction of the external intercostal muscles and contraction of the diaphragm with concomitant relaxation of the abdominal muscles, producing an increased negative intrathoracic pressure which sucks air into the lungs. Forceful expiration results from contraction of the internal intercostal muscles, plus contraction of the abdominal muscles, pushing the viscera against the relaxed diaphragm and forcing the air out of the lungs. The importance of the fact that the inspiratory forces are greater than the expiratory muscles will be emphasized later in this discussion. Also of interest is the fact that with inspiration the bronchial tree elongates and the bronchioles increase in size, the reverse effect occurring during expiration.

In asthma, bronchial constriction, mucosal edema, and the outpouring of a thick, tenacious mucus greatly diminishes the bronchial lumen. The reasons for the above mechanisms are still too nebulous to warrant a detailed discussion at this time. Suffice it to state that the histamine release theory still seems to dominate the literature. The aforementioned obstructive factors interfere greatly with the flow of air to and from the alveoli. Since the inspiratory force is stronger than the expiratory force, air becomes relatively trapped within the alveoli with each inspiration due to failure of the expiratory mechanism to exhale all of the air drawn into the lung. This results in pulmonary overdistention, giving the patient a sensation of being "blown up," and it seems to him as if he has only a small area of lung with which to breathe. Actually he does have only a small amount of tidal air due to pulmonary overdistention. Therefore, any treatment which relieves the bronchial spasm or helps the patient to clear out some of this thick mucus produces relief.

Subjectively, a typical case of asthma gives the following symptoms. First, the patient notes a tickling sensation in the nose leading often to a profuse watery coryza. The chest begins to tighten up, associated with a nonproductive cough. Soon he is aware of difficult respirations which can quickly lead to marked respiratory embarrassment. The cough becomes more bothersome. He seems to get air in but cannot get sufficient air out, and if the attack is severe the patient soon has to devote all of his attention to breathing, acquiring a sitting position and leaning slightly forward. If the attack is short and self-limited, and especially if therapy such as epinephrine has been administered, the coughing becomes productive, and with the removal of some of the obstructing mucus the patient falls back exhausted, and is relieved for the moment. However, some

attacks are prolonged for hours or days during which epinephrine or other measures give only temporary relief. In these cases the patient often notes an ache in the chest wall. This is due to muscular fatigue from the labored breathing and can become a very distressing symptom. In severe, prolonged cases the patient will often wish to give up due to the pain and seemingly eternal gasping for air, yet the automaticity of the respiratory mechanism maintains the ordeal until relief is obtained.

The diagnosis of bronchial asthma is usually a simple matter. The chest is filled with musical râles and wheezing, most pronounced during the expiratory phase of respiration, and expiration lasts two to three times as long as the inspiration. The thoracic cage is over-distended, the patient has an anxious face, and coughs frequently. Conditions which must be differentiated are: foreign body in a bronchus, cardiac asthma, bronchiogenic carcinoma, bronchial infections, and mediastinal pressure. Aids in the diagnosis are the history, the x-ray observations, the sputum examination, eosinophil count, and bronchoscopy.

The usual pathologic findings are thick mucous plugs in the bronchi, thickening and hyalinization of the basement membrane, hypertrophy of the bronchial musculature, eosinophilic infiltration, and hypertrophy and dilatation of the mucous glands. Emphysemic changes in the alveoli are also usually present.

Intrinsic asthma is still a rather ill-defined form of allergy. Rackemann has written a most interesting treatise on this subject, and he also admits failure in formulating a clear-cut theory regarding the etiology. The diagnosis of intrinsic asthma does not depend as much upon the exclusion of some extrinsic factor as upon the history of the attacks or of the persistence of asthma irrespective of outside factors.

Skin testing in this type of asthma is usually of little value. The paradox is often present where the patient gives a positive skin reaction to an allergen such as ragweed, yet is free of trouble during the ragweed season. Also interesting is the fact that of 2,000 cases of extrinsic asthma studied by Rackemann, none have died from asthma, and of 283 cases of the intrinsic form, 20 or 8 per cent have died from asthma.

All cases of intrinsic asthma do not start for the first time in middle age. Some have had typical extrinsic attacks for years, but later these become more frequent, last longer, and bear no relationship to environment or to known allergens. Other cases give a history of extrinsic asthma early in life. Then they become relatively free of attacks for years only to develop a persist-

ent intrinsic type later on. A history of wheezing following colds is found in still other patients, and as they become older the interval between periods of asthma becomes shorter.

I am always deeply concerned when confronted with a patient giving a history consistent with the diagnosis of intrinsic asthma, and have of late frankly told him of the course his asthma may take, hoping he will heed the instructions and actively pursue correction of this problem. It is important in the management of these cases to help the patient become aware of those factors which aggravate his asthma and to instruct him how to follow a maintenance program.

Two factors which are often overlooked in the consideration of asthma are weather and fear. This paper does not permit a detailed discussion of these most interesting aspects of allergy. Suffice it to say that they are of growing importance. Peterson and Vaughan, and Hilding have published convincing data regarding the association of deaths due to asthma with the passage of major polar air masses. Mayer has published the case histories of patients whose asthma was founded on a psychogenic basis, and there is a growing literature concerning this phenomenon.

The most valuable and most used drug in the treatment of bronchial asthma is epinephrine. It acts by relaxing the bronchial muscular spasm, thus increasing the bronchial lumen and provides relief in a matter of minutes. The usual mode of administration is by hypodermic injection, and doses of 5 minims are usually as effective as the usual 15 minim dose. This smaller dose can be repeated more often and causes fewer side reactions such as nervousness and palpitation. Epinephrine in a slowly absorbed media as peanut oil and gelatin has a definite place when a prolonged effect is desired. Intravenous epinephrine is extremely dangerous unless given in a very dilute solution, and other measures should be thoroughly tried before resorting to this technic. Recently the direct inhalation of 1:100 epinephrine from an atomizer has become a most useful method of administration. Epinephrine is not contraindicated in cases with heart disease or severe hypertension, but should be given with the utmost caution. I have always felt that the violent gasping and apprehension associated with severe asthma is no more of a strain on the cardiovascular system than this drug, and thus give it cautiously when indicated.

Aminophylline has in recent years taken a definite place in the armamentarium of asthmatic medication. Physiologically it acts by relaxing the bronchial muscles. It is also extremely valuable in relieving patients of an adrenalin fastness and

is less contraindicated in cases with cardiac disorders or hypertension. Doses of 3.75 grains are often as effective as the 7.5 grain dose. Both should be diluted in 10 centimeters or more of distilled water, and preferably given intravenously. Both doses must be given very slowly if nausea, vomiting, or a constrictive sensation in the chest are to be avoided. It is absolutely unnecessary to subject a patient to a rapid "shot" of this drug. Oral administration is helpful but far less effective, and when desired 0.4 to 0.6 grams can be diluted in 20 cubic centimeters of water and instilled rectally with favorable results.

The iodides have long been a favorite asthmatic medication. The iodine fraction is absorbed from the stomach and excreted by the bronchial and salivary glands. As the former glands excrete this drug, the tenacious mucus is liquified and thus facilitates its expectoration, clearing the bronchial lumen and providing immense relief. Failure in clearing up many cases of asthma could be avoided if the iodides were given in an adequate dosage for a longer period of time. Iodide rash and congestion of the salivary glands are the main complications.

Ephedrine and similar synthetic preparations are invaluable and act also by relaxing the bronchi. They are most useful in a maintenance program and when taken to prevent attacks of asthma. The fact that they can produce urinary retention in elderly men must be borne in mind.

Inhalation of helium and oxygen mixtures is valuable in the treatment of status asthmaticus, but is impractical in most situations because of difficulties in the administration.

Other methods of treatment which can be tried but which are usually of little if any value are calcium and potassium salts, histamine desensitizations, deep x-ray therapy to the chest, lipiodol instilled into the bronchi, hypertonic glucose, and rectal instillations of ether and oil.

In the management of any attack of asthma the mere relief from wheezing does not mean that the doctor is through. If the attack has lasted for any length of time, the lungs are in a soggy condition which, if not cleared by a follow-up program, furnishes coals for recurrent bouts of wheezing. True, with a short simple attack of asthma, an injection of epinephrine or aminophylline will frequently relieve the patient for a long period of time; but we as physicians owe that patient a program to follow in case of another attack just as much as we owe a diabetic patient a program for the regulation of his insulin or the routine to follow in insulin reactions. In my practice, every definite or potential asthmatic patient is told that he will most likely have subsequent attacks, and

that whether or not the etiology is found and corrected he should be familiar with the indications and action of the various medications. An epinephrine atomizer should be part of every asthmatic patient's armamentarium to be used as soon as the first symptom occurs. If the symptoms progress, iodides are to be taken to start freeing the mucus, and if the attack continues, a definite program of ephedrine and iodides four times a day is instituted, supplemented by the epinephrine spray. Also, his physician is to be consulted in all persistent attacks. Particular effort is made to impress the patient with the importance of starting treatment soon and to continue the program for one or two days after all symptoms have cleared up to be sure of drying up the lungs. In cases of status asthmaticus, hospitalization is insisted upon, so that a more active program can be instituted and the patient observed more closely. Adequate sedation and psychic reassurance is essential, since fear is a most potent aggravant to an asthmatic state.

Failure to persist in treating an attack of asthma until the lungs are clear may cause permanent damage to an individual. It is imperative that a child not be permitted to wheeze for long periods of time, since deformity of the growing thoracic cage is apt to take place. In adults, especially those past middle age, permanent emphysema is a constant danger. The lungs are of an elastic nature and after having been overdistended require considerable time to return to their former condition, and they often fail to return completely if left overdistended, much the same as a rubber band does when stretched for a long period of time.

CONCLUSION

In the treatment of asthma, many factors must be considered. The education of the patient in a maintenance program will help to prevent the return of severe asthmatic attacks. The fact that there are so many forms of treatment available is evidence in itself of the yet obscure state of our understanding of this common syndrome. I also wish to emphasize that all wheezes are not on an allergic basis, that so-called bronchial asthma is a complicated subject in which each case demands the individual application of therapeutic principles, and that there is a definite need for a more thorough understanding of that obscure phase of allergy called intrinsic asthma.

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CLINICOPATHOLOGIC CONFERENCE

POLIOMYELOENCEPHALITIS

(Anterior Poliomyelitis)

MAJOR JOSEPH E. FLYNN, M.C., A.U.S.

CASE REPORT

Clinical History: The patient, a white male twenty-one years of age, was well until July 26, 1943, at which time he developed headache, dizziness, stiffness of the neck and generalized body pains. These steadily increased in severity, and on July 27 he was hospitalized. On admission the positive findings were redness of the pharynx and rigidity of the neck. The initial clinical impression was influenza and meningismus. The patient was treated with sulfathiazole. On July 29 the patient complained of being unable to move his lower extremities. The diagnosis of poliomyelitis was made and the patient was transferred to another hospital.

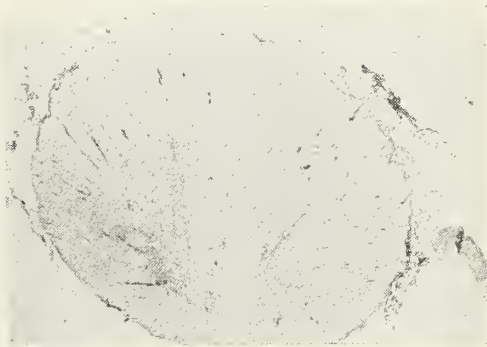


Fig. 1. Photomicrograph of a cross section of the spinal cord showing leptomeningeal infiltration and perivascular cuffing by inflammatory cells. A.M.M. Negative 98843 (x 16)

Physical Examination: On admission to the second hospital the temperature was 102.2 degrees. The neck was extremely rigid. There was no demonstrable involvement of the cranial nerves. There was moderate weakness of both upper extremities, particularly the left. The tendon reflexes in the upper extremities were hyperactive. Respiration was predominantly diaphragmatic. The function of the intercostal muscles was greatly diminished. The superficial abdominal reflexes and cremasteric reflexes were absent. There was complete flaccid paraplegia of the lower extremities.

Army and Navy General Hospital, Hot Springs, Arkansas.

ties. The tendon reflexes of the lower extremities were absent. No sensory changes were noted.

Laboratory Data: On admission to the second hospital the spinal fluid cell count was 106, all lymphocytes. The spinal fluid protein level was not recorded. Other laboratory examinations were negative.

Progress: On arrival at the second hospital the patient was alert and rational. No cyanosis was present. He was started on continuous and complete Kenny pack treatment. On the morning of the following day the patient became delirious and irrational. Respirations were shallow. The cough reflex was greatly diminished and he had some trouble swallowing. The Kenny treatment was continued. His condition remained stationary until midnight of the second hospital day when respirations became irregular and labored. The patient was placed in a Drinker respirator. Suction of the pharynx was maintained. After he was placed in the respirator he pleaded to be removed, gasping that he could "not get with it." On the third hospital day at 2:30 a. m. there was marked difficulty in swallowing and constant suction was maintained. He became increasingly cyanotic. He expired on the third hospital day, six days after the onset of his illness.

NECROPSY ABSTRACT

The lungs were dark bluish pink in color, distinctly boggy, with a decrease in crepitation. Microscopically, the pulmonary alveoli were filled with edematous fluid and beginning polymorphonuclear leukocytic infiltration. The other thoracic as well as the abdominal viscera were normal.

Multiple sections through the spinal cord revealed numerous irregular brownish discolorations of the anterior horns. These areas measured 1 to 2 millimeters across. Microscopically, the sections of the spinal cord at various levels showed a destructive inflammatory process throughout the gray matter. Most of the large nerve cells of the anterior horns were completely destroyed and

many were missing from the posterior horns. Of the remaining nerve cells a large number were swollen and showed margination of Nissl substance. A few were surrounded by mononuclears and polymorphs. Neuronophagia was, in most cases, indicated by small foci of phagocytic cells. In some of these the necrotic remains of the large nerve cells could be discerned. Numerous mononuclears and polymorphs surrounded the walls of vessels throughout both gray and white matter. The meninges were packed with inflammatory cells, mainly lymphocytes.

The brain weighed 1,530 grams. Grossly, no abnormalities were noted. Microscopically, the brain stem showed similar diffuse and perivascular inflammation with less destruction than was seen in the cord. The vagal and hypoglossal nuclei appeared largely destroyed. There was considerable involvement of the gray reticular substance. Extensive destruction of nerve cells was noted in the region of the locus caeruleus and nearby sensory nuclei, in the nucleus ruber, the substantia nigra and about the aqueduct of Sylvius. No lesions were seen in the cerebellum and cerebrum.

The skeletal muscles were normal microscopically.

COMMENT

This case represented the fulminating course which occurs when poliomyelitis involves the bulbar region. In this type of case, respirators or treatment by the Kenny method are seldom of value. As Wesselhoef¹ pointed out in his excellent article, respiratory difficulty in poliomyelitis may be related to one or more of three principal mechanisms. These mechanisms are: First, paralysis of the muscles of respiration; second, paralysis of the muscles of deglutition; and third, asynchronicity of the stimulus from the respiratory center. A respirator is of most value for the type of case in which the muscles of respiration are paralyzed. In the other types, although there is often associated respiratory paralysis, the respirator may do more harm than good. It is, therefore, essential that the physician evaluate the patient before using the respirator. Wesselhoef further points out that the respiratory center acts as a pacemaker, normally regulating the wave of contraction beginning in the diaphragmatic musculature and coordinately bringing into play the abdominal and thoracic muscles that are needed. When the diaphragm and other muscles of respiration are partially or totally paralyzed, the respiratory center readily relinquishes its rôle as a pacemaker to the respirator. A similar situation occurs when a normal individual is placed in a Drinker respirator. The individual may be unaware of the shift of the respiratory pacemaker until he attempts to

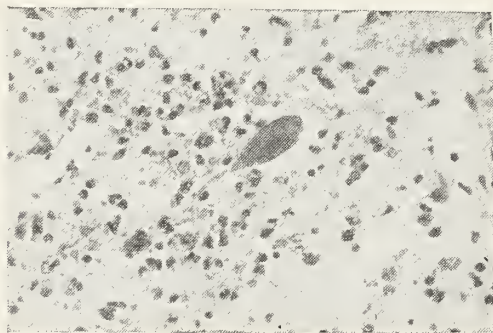


Fig. 2. Photomicrograph showing necrotic anterior horn cell. The necrotic cell has attracted inflammatory cells. A.M.M. Negative 98843 (x 650)

converse during inspiration. Irritation of the respiratory center, such as occurs with certain bulbar lesions, causes irregular respirations that prevent the coordination between the machine and the patient, since inspiration may be stimulated at the time the machine initiates expiration, and vice versa. Under such circumstances, the patient is violently aware of the incoordination, often pleading or making motions to be released from the distressing situation.

When paralysis of deglutition occurs, the upper respiratory tract is no longer kept clear of the secretions that are constantly forming. In order to avoid aspiration of these secretions, the breathing becomes shallow. In a respirator this compensatory mechanism no longer obtains and often aspiration of the secretions occurs with disastrous results.

In the case reported, death was the result of paralysis of the muscles of respiration and muscles of deglutition. The early pneumonitis was secondary to the aspiration of the oral and pharyngeal secretions.

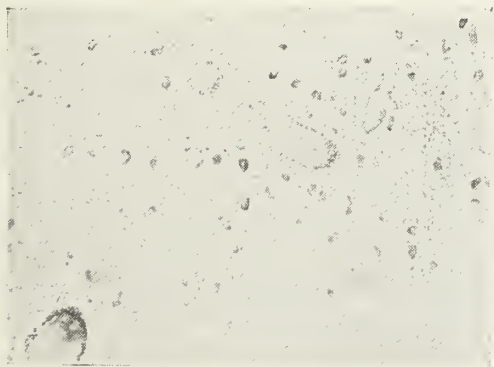


Fig. 3. Photomicrograph of substantia nigra showing perivascular cuffing and neurophagia. A.M.M. Negative 98843 (x 235)

DISCUSSION

Pathogenic viruses, whatever the type, are intracellular parasites. They grow or proliferate only in the living cell. It is this growth or fabrication within the cell that produces the disease. Furthermore, it is this growth within the living cell that renders such therapeutic agents as penicillin, sulfonamides, and convalescent serum totally ineffective, since the assaulting therapeutic agent, present as it is in the interstitial fluid, is separated from the well ensconced virus inside the cell by an impregnable barrier—the cellular membrane. The type of cell invaded by the virus varies with the type of virus. For example, in certain warts, it is the cutaneous epithelium; in yellow fever, it is the hepatic cell; in the neutrophic viruses, such as rabies, equine encephalitis or poliomyelitis, it is the neurone. The method of introduction into the

body likewise varies with the type of virus. For example, in the case of warts, the virus is probably introduced through the skin; in certain other viral diseases, it is through the respiratory tract or the gastro-intestinal tract; and finally, the virus may be inoculated into the blood stream, as in yellow fever.

The virus affects the cell it inhabits in one of four ways: First, it may stimulate the cell to proliferate; second, it may cause proliferation followed by necrosis; third, it may cause only necrosis; fourth, it may produce no morphologic alteration in the cell, merely producing a temporary interference with the function of the cell.² An example of pure proliferation is seen in warts; an example of proliferation followed by necrosis occurs in smallpox; an example of necrosis is yellow fever or poliomyelitis; an example of the absence of the production of morphologic changes in the cell, but with a temporary interference in the function of the cell, is also seen in poliomyelitis.

Specifically, with regard to poliomyelitis, the following aspects are of importance:

First, poliomyelitis is undoubtedly a far more common disease than the clinical evidence of paralysis would suggest. It has been demonstrated that 75 per cent of the adult general population have neutralizing antibodies to the poliomyelitis virus,^{3, 4} whereas only a small fraction of the general population has had clinically recognized poliomyelitis.

Second, when the nerve cell is invaded by the poliomyelitis virus, it cannot proliferate. The invasion by the poliomyelitis virus of the nerve cell may or may not be followed by death of the cell. If the cell does not die, often its function is temporarily interrupted. When the cell dies, the dead cell elicits an inflammatory response and eventually the necrotic remnants are phagocytized. Hence inflammation follows the destruction of the cell—and not vice versa. As a result of the inflammatory response produced by the necrosis of the cell, there is an overflow of the inflammatory cells into the spinal fluid.

Third, it was formerly thought that the anterior horn neurones or bulbar nuclei were the only neurones invaded by the poliomyelitis virus. This concept is false, although it is true that generally the anterior horn cells and the bulbar nuclei bear the brunt of the attack. Poliomyelitis is really a generalized infection of the central nervous system with lesions present in the lateral, anterior, and posterior horns as well as in the brain above the level of the bulbar nuclei. The term "poliomyeloencephalitis" is therefore preferred.

Fourth, it is to be remembered that each muscle fiber is supplied by its own nerve cell. Since each muscle consists of many thousands of fibers, many

thousands of nerve cells must be destroyed before a muscle is totally paralyzed. If, for example, only 50 per cent of the nerve supply of a given muscle is destroyed, the muscle is weakened but not completely paralyzed. If, on the other hand, the majority of these nerve cells survive the attack and destroy or attenuate the virus, then the function of the muscle will return almost completely. It is unusual, except in severe cases, for the entire nerve supply of a given muscle to be destroyed. Generally the nerve supply of a few fibers is spared. It is the hypertrophy of these surviving muscle fibers that the physician attempts to produce by appropriate and properly timed rest and exercise.

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SURGEON GENERAL OUTLINES PERSONNEL RELEASE POLICY

Substantial releases of Army Medical Department personnel will not take place before the latter part of this year, Surgeon General Norman T. Kirk said in announcing a policy on discharges in conformity with War Department procedures. This is due to the fact that the peak of the Medical Department's activities will not be reached until fall.

In formulating the policy consideration was given to civilian needs for professional medical, dental and veterinary care without weakening military needs. Other factors considered were the length of time necessary for personnel to complete their work in the Mediterranean and European Theaters and return to the United States; replacement of Medical Department personnel in active theaters by those who have not had overseas duty; necessity for the maintenance of a high standard of medical care; the heavy load of patients in the United States; evacuation of the sick and wounded from Europe in the next ninety days and continuing medical service in the Pacific.

The policy applies with equal effect to Army medical officers assigned to the Veterans Administration and other agencies.

It reads:

Medical Corps

- a. Officers whose services are essential to military necessity will not be separated from the service.
- b. Officers above 50 years of age whose specialist qualifications are not needed within the Army will receive a high preferential priority for release from active duty.
- c. Adjusted Service Ratings will be utilized as a

definite guide to determining those who are to be separated.

Medical Administrative Corps

- a. Officers whose services are essential to military necessity will not be separated.
- b. Officers who express a desire to stay on duty shall be allowed to do so if vacancies exist. In the event there are more wishing to stay than there are vacancies, those with the highest efficiency index will be retained.
- c. Those who wish to be released will be selected on the basis of Adjusted Service Scores.

POLICY ON ASSIGNMENT OF MEDICAL CORPS OFFICERS TO VETERANS ADMINISTRATION

Additional U. S. Army Medical Corps officers will not be assigned to duty with the Veterans Administration unless they had previously been serving on the staff of that organization, Major General George F. Lull, Deputy Surgeon General of the Army, announced.

In outlining this War Department policy General Lull stated that in the event officers specifically requested service with the Veterans Administration they would be eligible for such assignments.

MEDICOLEGAL CONFERENCE AND SEMINAR

The Department of Legal Medicine of the medical schools of Harvard, Tufts, and Boston University in association with the Massachusetts Medico-Legal Society will present a six-day program of lectures, conferences, and demonstrations having to do with the investigation of deaths in the interests of public safety. Attendance during five of the six days of the course will be limited to fifteen persons who have registered in advance. On one day (October 3) the program will be open to any physician, lawyer, police official, or senior medical student who may care to attend.

Further information may be obtained from the secretary of the Massachusetts Medico-Legal Society, 25 Shattuck Street, Boston.

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STATE DEPARTMENT OF HEALTH

Walter L. Biering

Malaria in the Upper Mississippi Basin

REPORTED INCIDENCE OF MALARIA IN IOWA

The following table shows annual totals of reported cases of malaria in Iowa during the decade 1935-1944 and the first half of 1945.

Year	No. of Cases
1935	24
1936	12
1937	12
1938	13
1939	62
1940	60
1941	20
1942	2
1943	16
1944	241
1945 (1st 6 Mo.)	250

The striking increase in reported prevalence of malaria in 1944 and thus far in 1945 is due largely to infection incurred outside this state and the continental United States, affecting men serving with the armed forces and individuals in prisoner of war camps. With the sojourn in this area of so many malaria cases and the well-known tendency of the common tertian form to repeated relapse, attending physicians, laboratory technicians and health officials need to be on the watch for the possible occurrence of sporadic cases or outbreaks of malaria in urban and rural communities of Iowa.

MALARIA SURVEY OF UPPER MISSISSIPPI BASIN

Attention of readers of the JOURNAL is directed to a well illustrated, carefully edited and printed "Report on Malaria Survey Along the Upper Mississippi River," published under auspices of the Board of State Health Commissioners, Upper Mississippi River Basin.

Part One, which deals with the survey of 1940-1941, was prepared by H. W. Poston, former staff member of the Department's Division of Public Health Engineering. Part Two, a description of the survey of 1942, was prepared by M. M. Bronks, Ph.D.

"The Malaria survey was financed as a cooperative project by the State Departments of Health of Minnesota, Wisconsin, Illinois, Missouri and Iowa, using Social Security Funds allocated for that purpose. The Interstate Malaria Survey was set up under the Board of Health Commissioners, Walter L. Biering, M.D., Commissioner of the State Department of Health of Iowa, acting as administrative and fiscal agent for the Board in budgetary matters dealing with the Interstate Malaria Survey.

"Mr. J. A. LePrince, retired, of the U. S. Public Health Service, was chief of survey during the 1940 season and was responsible for the organization of the first year's work."

Five species of anopheline mosquitoes were collected and studied, including Anopheles quadrimaculatus, the chief actor for the spread of malaria.

The report presents data on the prevalence of malaria in the various states concerned; it also lists findings of blood films obtained from a school survey and a house-to-house survey.

The final paragraph of the section on Conclusions and Recommendations reads in part: "Looking ahead to the return of men and women from tropical areas after the war, it would seem that the greatest contribution that the Board of State Health Commissioners could make regarding malaria at the present time would be to make certain that the laboratories in the region have experienced technicians capable of determining the presence or absence of malarial parasites in blood films . . ."

REFERENCE

Report of Malaria Survey Along the Upper Mississippi River between Alton, Illinois, and St. Paul, Minnesota, (1940, '41, '42) published by the Office of Interstate Malaria Survey, Board of State Health Commissioners, Upper Mississippi River Basin.

AMERICAN CONGRESS OF PHYSICAL MEDICINE CANCELS MEETING

The American Congress of Physical Medicine has canceled its annual scientific and clinical session which was to have been held in New York City September 5 to 8, 1945.

The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

LEE FORREST HILL, Editor.....Des Moines
DENNIS H. KELLY, Associate Editor.....Des Moines

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NEXT STEPS PROPOSED FOR THE CHILDREN'S BUREAU BY THE NATIONAL COMMISSION ON CHILDREN IN WARTIME

One of the last acts of Frances Perkins, Secretary of Labor, before her retirement from that office, was to recommend to President Truman the adoption of the proposals of the National Commission on Children in Wartime. It may be of interest to Iowa physicians to examine more closely those portions of these proposals which relate to health.

First of all, however, what is the National Commission on Children in Wartime? It has a total membership of seventy-seven persons originally appointed in February, 1942, as the Children's Bureau Commission on Children in Wartime, and reappointed by the Chief of the Children's Bureau in February, 1944. An executive committee of twenty-one members under the chairmanship of Leonard W. Mayo of Cleveland, Ohio, representing the Child Welfare League of America, includes among its membership three physicians, four representatives of labor, and two representatives of national farm organizations. Most of the remaining members of the Commission represent national organizations having to do with child welfare.

"The health of children," states the Commission's report, "no less than their education, is a public responsibility." And again, "The nation can no longer afford to neglect its children as it has in the past." Each of these positive statements is certainly open to argument, but it will suffice our purpose here to point out that there are seventy-seven representatives of organizations, whose total membership runs into the millions, who believe

that health services for children should be dispensed under public control in the same manner as is their education. Furthermore, most of us in the medical profession would scarcely agree that the nation's children are being neglected in view of the standard of health American children enjoy compared to other nations, and that mortality and morbidity rates in all ages of childhood have undergone incredible reductions in the last half century. To be sure, there are many problems in expansion of medical health services of children that need solution, but can any fair-minded person classify as neglect the tremendous national effort under private enterprise now being waged or contemplated in the interests of child health and welfare?

The specific proposals made by the Commission are for extension of the present Federal-State grant-in-aid programs. For maternal and child health the maximum federal appropriation is fixed at \$5,820,000 a year and for crippled children the maximum appropriation is fixed at \$3,870,000 a year. Under the EMIC program, however, special allotment was made by Congress which in the fiscal year of 1945 will amount to approximately \$44,000,000. The National Commission now recommends that for the fiscal year of 1946 the maximum authorized for appropriation from Federal funds for grants to states for maternal and child health should be raised by approximately \$50,000,000. For crippled children's services the Commission recommends that the maximum appropriation be raised by at least \$25,000,000. It is interesting to note how this latter sum would be broken down according to the Commission's recommendation: \$5,000,000 would go for orthopedically crippled children, including children with cerebral palsy; for children with other physically handicapping conditions, including defects of vision and hearing, diabetes, allergy, epilepsy, etc., another \$5,000,000 would be allotted. The "etc." coming at the end of the list of diseases appears in the Commission's report. What this "etc." might eventually come to include is anyone's guess. The remaining \$15,000,000 of the appropriation would be devoted to children with rheumatic fever and heart disease. The Children's Bureau has already ruled that any of its crippled children's programs must be open to anyone, regardless of race, color, economic status, or residence.

Another rather startling proposed action by the Commission is that in the event a state fails to make provision for the administration of a grant-in-aid plan in accordance with the requirements under any legislation that may be adopted, authority should be given in the legislation to develop and carry out plans for making such services

available within the state. We interpret this to mean that if a state like Iowa elected not to go along with the Children's Bureau program, providing the proposed action is adopted, then there would be included in the Federal legislation authority to compel making such services available within the state.

The foregoing is the gist of what an important group of persons has recommended should be the postwar program of the Children's Bureau insofar as it affects its health activities. The Commission feels that any program "must ultimately fit into a total medical-care plan designed to lift the level of health and medical care for all the people, but expansion of the services necessary for mothers and children must not be delayed pending decisions on the total plan." Add this to the Wagner bill and one has a picture of what the Government has in mind for its postwar medical plans. Now the important thing for us as physicians is to consider what alternative proposals we have to offer the people of America which will achieve objectives that we feel are desirable and necessary in the extension of medical care. We would direct your attention to page 336 where there appears the medical profession's idea of a constructive program for medical care. It is based upon private enterprise and democratic principles. The Government's program is political. Some of these days our congressmen are going to have to decide whether they will accept or reject the Wagner bill, or some modification of it, and perhaps the proposals of the National Commission on Children in War-time. It seems only reasonable to expect that in their deliberations they will examine closely the progress being made by voluntary prepayment hospital and medical service plans in the various states in order to reach a decision as to whether in their judgment it seems likely that such programs will be able to meet the postwar medical needs of our people.

What of our Iowa plan? Are we behind it one hundred per cent as physicians so that our congressmen can look at what we are doing and have every confidence that the plan is going to be a success? Or are we holding back, being indifferent, or actually opposing it while waiting for something better to be developed? Would we not be wiser and farther ahead in the end if we adopted a little of the spirit surrounding the San Francisco Charter where it was realized that the instrument was by no means perfect but at least it was a beginning, should be supported, and that modifications could be made in the future as they were found necessary? Would it not be better for all of us to get behind the Iowa medical service plan now, even if it isn't just what

each of us would like, and then work to bring about such modifications as are indicated when the necessity for these modifications arise? It seems important to the JOURNAL that our congressmen be thoroughly convinced that American Medicine has a program which will work, which will achieve the desired objectives, and which will be superior to any politically dominated type of compulsory insurance program that can be devised.

FURTHER USES FOR PENICILLIN THERAPY DEMONSTRATED

Nearly every issue of a medical journal being published these days carries one or more articles describing some additional disease for which penicillin has been found effective. Typical is a report by Marks in the June issue of the *Journal of Pediatrics* who finds penicillin superior to all other methods in the treatment of thrush in infants, Plaut-Vincent's infection (trench mouth, ulcerative stomatitis, Vincent's angina) and herpetic stomatitis. Illustrative case histories are appended which show that intramuscular injections of the drug every three hours until a total of 40,000 to 100,000 units have been given brought about prompt cures, even when the usual methods of treatment such as dyes, oxidizing reagents and antiseptics had been employed with little success. Topical applications in dilutions of 250 units per cubic centimeter were also found to be effective, but less so than intramuscular injections.

More startling is a report by Glasser, Herrlin, Jr., and Pollock in the July 14 issue of the *Journal of the American Medical Association* of the intra-arterial administration of penicillin in twenty-four cases of severe types of infection, with emphasis placed on infection occurring in arms and legs as a complication of hardening of the arteries with or without diabetes. The excellent results obtained by the authors prompts them to recommend this method in the treatment of war wounds of the extremities where infection is an ever present possibility.

The advantage of the arterial injection of the drug as pointed out in the report is that it is carried directly into the infected tissues in a much greater concentration than is possible by the intravenous route. Application of a tourniquet above the site of infection for ten minutes enhances its effectiveness. The doctors are of the opinion that this method of using penicillin may well result in the saving of many limbs from amputation.

The June 23 issue of the *Journal of the American Medical Association* carries three articles on the treatment of empyema with penicillin. Space does not permit critical review of each of these re-

ports, but in summary it may be said that each of the sets of authors had had cures of empyema by direct instillation of penicillin into the empyema cavity without having to resort to rib resection or surgical drainage. This is in keeping with our own experience in the treatment of empyema in children by this method. Thus far surgical intervention has not been necessary in any case of empyema we have encountered (six cases in all). Penicillin in a dilution of 1,000 units per cubic centimeter and in a dosage of 20,000 to 50,000 units has been injected daily after aspiration of as much pus as possible until the patient becomes afebrile, cultures sterile, and the amount obtained at aspiration greatly reduced. From then on penicillin injections are done every other or every third day as long as necessary. In each case the lung has re-expanded and the empyema cavity has become obliterated. This medical treatment of empyema with penicillin, provided the causative organism is susceptible, has been sufficiently demonstrated to be the method of choice; nevertheless caution must be sounded that good judgment will, under certain conditions, call for surgical intervention.

Finally, we would call attention to the value of penicillin in the treatment of impetigo. One or two small intramuscular injections have been found effective. Recently there came under our observation the cure of pemphigus in an infant with intramuscular injections of penicillin and topical dressings of penicillin in a dilution of 250 units per cubic centimeter.

Thus is the field of usefulness of this drug gradually widening. Undoubtedly there are many other conditions which further experience will prove to be susceptible to this remarkable substance. Truly the practice of medicine becomes an ever-increasing pleasure.

APPEAL FOR RELEASE OF MEDICAL OFFICERS NOT NEEDED BY ARMED FORCES

We reprint below a statement made by the executive committee of the Indiana State Medical Association with which we heartily concur and which we believe all other physicians, both on the home front and in the military services, would approve. For this reason we are glad to devote editorial space in our JOURNAL to further its publicity range.

Now that V-E Day is passed and we are expecting the release from service of part of our Armed Forces, immediate consideration should be given to the release of as many of the doctors as is consistent with the best interest of the Armed Forces and of the civilian population. Promptness in reducing the size of the Medical Corps should be the positive aim of everyone having responsibility

in this field. There should never be a time when any doctor is being kept in the military service with nothing for him to do professionally in connection with his military status. He should not be kept in the service to do things which could as well be done by those not trained as physicians. Many persons have delayed obtaining the medical care they should have had until their regular physicians get back from the war.

The doctors in the service have written a glorious chapter in the history of American medicine. We point with particular pride to the record of the Indiana physicians who volunteered. Indiana was among the first states to fill its quota of medical officers. It never has lagged in filling any additional demands made upon the profession by the military authorities. The outstanding service rendered by these medical officers has merited rewards in every combat area where American troops have served and are serving. The Army, Navy, and Air Force should not incur the criticism of the public or of the physicians in those services by holding any physician in military service a day longer than the interest of the country requires.

The medical profession of Indiana was determined at the outbreak of the war that no one in the Armed Services of the United States should ever lack medical care, no matter how urgent and severe an emergency the Armed Forces might be called upon to face. Some of the public may have felt that this obligation of medicine to the Armed Forces was over-emphasized, to the disadvantage of the civilian population. A severe epidemic would have presented a real medical problem, and it is fortunate that this has not occurred, for many doctors who did not enter the service have carried professional burdens beyond their strength.

The Executive Committee of the Indiana State Medical Association urges that those in authority look upon the early and prompt release of physicians, when they can be spared, as a matter of the utmost urgency and importance,—and when we say “when they can be spared,” we must be understood to mean that every soldier, sailor, marine, nurse, WAC, WAVE, or SPAR, or anyone else who needs medical care in connection with military services will have it, even without the physicians who are to be dismissed. But after all the Armed Services are taken care of, any delay in releasing a physician should be avoided as an injustice to the public, an unnecessary burden on the treasury, a source of criticism of those in authority, and unfair treatment of the physician who is serving his country.

VITAMIN C WITHOUT VALUE IN THERAPY OF HAY FEVER

Popular and professional belief in the efficacy of vitamin C in the treatment of certain allergic states, especially hay fever, has led to a widespread use of this substance dating from publication of a paper by Holmes and Alexander in *Science* in 1942. In the May, 1945, issue of *The Journal Allergy*, Friedlaender and Feinberg report the results of a study which led them to the conclusion that even large doses (500 milligrams) of vitamin C do not change the course of hay fever or asthma. During the 1944 hay fever season 43 patients were treated with 500 milligrams of vita-

(Continued on page 352)

President's Page

During these hot summer days when most of us are either planning or enjoying well earned vacations, it is interesting to know that the committee to investigate state hospitals caring for the mentally ill, which was recently appointed by the Iowa Legislature, is hard at work. The committee has a membership of five; two were appointed by the Senate, two by the House, and the fifth by the Governor. The members are Senator H. M. Knudson, chairman, Senator A. L. Doud, Representatives John S. Heffner and John R. Gardner, M.D., and Dr. Samuel Hamilton, acting head of the Mental Hygiene Division of the United States Public Health Service. Dr. Hamilton acted in a similar capacity during an investigation of these hospitals in 1937. He is familiar with the institutions and is eminently fitted for the job. His appointment is an excellent choice. All of the other members have been active in support of health legislation and are well qualified to appraise properly the many improvements needed.

The investigation will take into consideration buildings and equipment, the possibility of a new hospital to function as a "receiving hospital," treatment facilities, adequate medical, nursing and lay personnel, and, I trust, the care and follow-up treatment of discharged patients. One plan suggested is to use the hospitals for teaching purposes and also to establish refresher courses at the University for the nurses employed at the hospitals. A new method of commitment will also be considered.

The offer of the full support and cooperation of the State Medical Society has been accepted by the committee, and I trust that individually you will do your utmost to assure Iowa of a greatly improved program of medical care at these hospitals. It is not too soon to plan an active campaign to make these Iowa hospitals the best in the country, to guarantee our mentally ill the best of modern treatment by well paid staffs which will include the finest and best trained personnel obtainable in addition to the worthy group of men who have worked so loyally under adverse conditions.

R. S. Bernard, M.D.

President, Iowa State Medical Society.

CONSTRUCTIVE PROGRAM FOR MEDICAL CARE

AMERICAN MEDICAL ASSOCIATION

This platform was adopted by the Council on Medical Service and Public Relations and the Board of Trustees of the American Medical Association on June 22, 1945.

Preamble

The physicians of the United States are interested in extending to all people in all communities the best possible medical care. The Constitution of the United States, the Bill of Rights and the "American Way of Life" are diametrically opposed to regimentation or any form of totalitarianism. According to available evidence in surveys, most of the American people are not interested in testing in the United States experiments in medical care which have already failed in regimented countries.

The physicians of the United States, through the American Medical Association, have stressed repeatedly the necessity for extending to all corners of this great country the availability of aids for diagnosis and treatment, so that dependency will be minimized and independence will be stimulated. American private enterprise has won and is winning the greatest war in the world's history. Private enterprise and initiative manifested through research may conquer cancer, arthritis and other as yet unconquered scourges of humankind. Science, as history well demonstrates, prospers best when free and unshackled.

Program

The physicians represented by the American Medical Association propose the following constructive program for the extension of improved health and medical care to all the people:

1. Sustained production leading to better living conditions with improved housing, nutrition and sanitation which are fundamental to good health; we support progressive action toward achieving these objectives:

2. An extended program of disease prevention with the development or extension of organizations for public health service so that every part of our country will have such service, as rapidly as adequate personnel can be trained.

3. Increased hospitalization insurance on a voluntary basis.

4. The development in or extension to all localities of voluntary sickness insurance plans and provision for the extension of these plans to the needy under the principles already established by the American Medical Association.

5. The provision of hospitalization and medical care to the indigent by local authorities under voluntary hospital and sickness insurance plans.

6. A survey of each state by qualified individuals and agencies to establish the need for additional medical care.

7. Federal aid to states where definite need is demonstrated, to be administered by the proper local agencies of the states involved with the help and advice of the medical profession.

8. Extension of information on these plans to all the people with recognition that such voluntary programs need not involve increased taxation.

9. A continuous survey of all voluntary plans for hospitalization and illness to determine their adequacy in meeting needs and maintaining continuous improvement in quality of medical service.

10. Discharge of physicians from the armed services as rapidly as is consistent with the war effort in order to facilitate redistribution and relocation of physicians in areas needing physicians.

11. Increased availability of medical education to young men and women to provide a greater number of physicians for rural areas.

12. Postponement of consideration of revolutionary changes while 60,000 medical men are in the service voluntarily and while 12,000,000 men and women are in uniform to preserve the American democratic system of government.

13. Adoption of federal legislation to provide for adjustments in draft regulation which will permit students to prepare for and continue the study of medicine.

14. Study of postwar medical personnel requirements with special reference to the needs of the veterans' hospitals, the regular army, navy and United States Public Health Service.

Roster of Iowa Physicians in Military Service

As of July 23, 1945

Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) Lt. Col., A.U.S.
Gantz, A. J., Greenfield (Denver, Colo.) Capt., A.U.S.

Adams County

Bain, C. L., Corning (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Willett, W. J., Carbon (APO 230, New York, N. Y.) Capt., A.U.S.

Allamakee County

Hogan, P. W., Waukon
Ivens, M. H., Waukon (Miami Beach, Fla.) Capt., A.U.S.
Kiesau, M. F., Postville (APO 513, New York, N. Y.) Major, A.U.S.
Rominger, C. R., Waukon (Camp Claiborne, La.) A.U.S.

Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.) Major, U.S.P.H.S.
Edwards, R. R., Centerville (APO 513, New York, N. Y.) Major, A.U.S.
Huston, M. D., Centerville (Santa Fe, N. Mex.) Capt., A.U.S.

Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) Major, A.U.S.

Benton County

Koontz, L. W., Vinton (APO 7, San Francisco, Cal.) Capt., A.U.S.
Senfeld, Sidney, Belle Plaine

Black Hawk County

Bickley, D. W., Waterloo (APO New York, N. Y.) Capt., A.U.S.
Bickley, J. W., Waterloo (APO 956, San Francisco, Cal.) Capt., A.U.S.
Butts, J. H., Waterloo (Galveston, Texas) Comdr., U.S.N.R.
Cooper, C. N., Waterloo (Newport, R. I.) Lt. Comdr., U.S.N.R.
Ericsson, M. G., Cedar Falls (Camp Berkeley, Tex.) Capt., A.U.S.
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) Capt., A.U.S.
Henderson, L. J., Cedar Falls (APO 782, New York, N. Y.) Major, A.U.S.
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) Capt., A.U.S.
Ludwick, A. L., Waterloo (Abilene, Texas) Major, A.U.S.
Marquis, F. M., Waterloo (APO 513, New York, N. Y.) Capt., A.U.S.
O'Keefe, P. T., Waterloo (APO 79, New York, N. Y.) Capt., A.U.S.
Paige, R. T., LaPorte City (Banana River, Fla.) Comdr., U.S.N.R.
Rohlf, E. L., Jr., Waterloo (APO 230, New York, N. Y.) Major, A.U.S.
Seibert, C. W., Waterloo (Colorado Springs, Colo.) Major, A.U.S.
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) Major, A.U.S.
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) Major, A.U.S.
Trunnell, T. L., Waterloo (Parris Island, S. Car.) Lt. U.S.N.R.

Boone County

Brewster, E. S., Boone (APO 446, New York, N. Y.) Major, A.U.S.
Healy, M. J., Boone (Fort Sill, Okla.) Capt., A.U.S.
Shane, R. S., Pilot Mound (Des Moines, Ia.) Lt. Col., A.U.S.

Bremer County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Ratbe, H. W., Waverly (APO 209, New York, N. Y.) Lt. Col., A.U.S.
Shaw, R. E., Waverly (Long Beach, Cal.) 1st Lt., A.U.S.

Buchanan County

Barton, J. C., Independence (APO 519-A, New York, N. Y.) Lt. Col., A.U.S.
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Leebey, P. J., Independence (APO 244, San Francisco, Cal.) Capt., A.U.S.
Loeck, J. F., Aurora (APO 887, New York, N. Y.) Capt., A.U.S.

Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) Capt., A.U.S.
Brecher, P. W., Storm Lake (Camp Adair, Ore.) Lt. Col., A.U.S.
Hansen, R. R., Storm Lake (Farragut, Idaho) Lt., U.S.N.R.
Mailiard, R. E., Storm Lake (APO 254, New York, N. Y.) Lt. Col., A.U.S.
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) Capt., A.U.S.
Witte, H. J., Maratbon (APO 350, New York, N. Y.) Major, A.U.S.

Butler County

Andersen, B. V., Greene (Pensacola, Fla.) Lt., U.S.N.R.
James, R. A., Allison (Mare Island, Cal.) 1st Lt., A.U.S.
Rolf, F. O., Parkersburg (Springfield, Mo.) 1st Lt., A.U.S.

Calhoun County

Grinley, A. V., Rockwell City (APO 350, New York, N. Y.) Capt., A.U.S.
Hobart, F. W., Lake City (APO 562, New York, N. Y.) Capt., A.U.S.

McVay, M. J., Lake City (Waco, Texas) Capt., A.U.S.
Peek, L. H., Lake City (Camp Carson, Colo.) Capt., A.U.S.
Stevenson, W. W., Rockwell City (Seattle, Wash.) Lt. Comdr., U.S.N.R.
Weyer, J. J., Lobville (APO 465, New York, N. Y.) Capt., A.U.S.

Carroll County

Anneberg, A. R., Carroll (APO 70, San Francisco, Cal.) Capt., A.U.S.
Anneberg, W. A., Carroll (APO 367, New York, N. Y.) Capt., A.U.S.
Cochran, J. L., Carroll (Gulfport, Miss.) Lt., U.S.N.R.
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) Major, A.U.S.
Freeland, Maurice, Coon Rapids
Morrison, J. R., Carroll (APO New York) Major, A.U.S.
Morrison, R. B., Carroll (APO 557, New York, N. Y.) Capt., A.U.S.
Pascoe, P. L., Carroll (Bowman Field, Ky.) Capt., A.U.S.
Scannell, R. C., Carroll (Denver, Colo.) Capt., A.U.S.
Tindall, R. N., Coon Rapids (Camp Grant, Ill.) Major, A.U.S.
Wyatt, M. R., Manning (Stuttgart, Ark.) Capt., A.U.S.

Cass County

Egbert, D. S., Atlantic (APO 218, New York, N. Y.) Major, A.U.S.
Ergenbright, W. V., Atlantic (APO 331, San Francisco, Cal.) Capt., A.U.S.
Needles, R. M., Atlantic (APO 131, New York, N. Y.) Capt., A.U.S.
Peterson, M. T., Atlantic (Charleston, S. Car.) Capt., A.U.S.
Schiff, Joseph, Anita (New York, N. Y.) 1st Lt., A.U.S.

Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.) Lt., U.S.N.R.
Moshier, M. L., West Branch (APO 560, New York, N. Y.) Capt., A.U.S.
O'Neal, H. E., Tipton (Minneapolis, Minn.) Lt. Col., A.U.S.

Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.) Major, A.U.S.
Egloff, W. C., Mason City (Omaha, Neb.) Capt., A.U.S.
Fitzpatrick, M. R., Mason City (Ft. Riley, Kan.) 1st Lt., A.U.S.
Flickinger, R. R., Mason City (Memphis, Tenn.) Capt., A.U.S.
Hale, A. E., Dougherty (Atlanta, Ga.) Capt., A.U.S.
Harris, R. H., Mason City (Dyersburg, Tenn.) Capt., A.U.S.
Harrison, G. E., Mason City Col., A.U.S.
Houlahan, J. E., Mason City (APO 838, New Orleans, La.) Capt., A.U.S.
Lannon, J. W., Clear Lake (APO 339, New York, N. Y.) Capt., A.U.S.
Long, D. L., Mason City (APO 603, Miami, Fla.) Capt., A.U.S.
Morgan, P. W., Mason City (APO 89, New York, N. Y.) Capt., A.U.S.
Mullen, L. M., Mason City (APO 252, New York, N. Y.) Capt., A.U.S.
Sternhill, Irving, Mason City (Ayer, Mass.) Capt., A.U.S.
Tice, G. I., Mason City (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
Tice, W. A., Mason City (Ft. Eustis, Va.) Lt. (jg), U.S.N.R.
Woodward, E. R., Mason City (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.

Cherokee County

Bullock, G. D., Washta (APO 17583, New York, N. Y.) Capt., A.U.S.
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) Major, A.U.S.
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) Capt., A.U.S.

Chickasaw County

Caulfield, J. D., New Hampton (APO 178, New York, N. Y.) Major, A.U.S.
Murphey, A. L., Fredericksburg (Ft. Leavenworth, Kan.) Capt., A.U.S.
O'Connor, E. C., New Hampton (Redmond, Ore.) Capt., A.U.S.
Richmond, P. C., New Hampton (APO 88, New York, N. Y.) Major, A.U.S.

Clarke County

Armitage, G. I., Murray (APO 629, New York, N. Y.) Capt., A.U.S.

Clay County

Edington, F. D., Spencer Col., A.U.S.
Jones, C. C., Spencer (Farragut, Idaho) Lt., U.S.N.R.
King, D. H., Spencer (Great Bend, Kan.) Capt., A.U.S.

Clayton County

Glesne, O. G., Monona (Knoxville, Iowa) Capt., A.U.S.
Rhomberg, E. B., Guttenberg (APO 584, New York, N. Y.) Capt., A.U.S.

Clinton County

Amesbury, H. A., Clinton (Vancouver, Wash.) Major, A.U.S.
Burke, J. C., Clinton (Great Bend, Kan.) A.U.S.
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) Capt., A.U.S.

Hill, D. E., Clinton (APO 9787, New York, N. Y.)...Capt., A.U.S.
 King, R. C., Clinton (Clinton, Iowa).....Capt., A.U.S.
 Lenaghan, R. T., Clinton (Olathe, Kans.)...Lt. Comdr., U.S.N.R.
 Norment, J. E., Clinton (San Bruno, Cal.)...Comdr., U.S.N.R.
 O'Donnell, J. E., Clinton (San Francisco, Cal.)...Lt., U.S.N.R.
 Riedesel, E. V., Wheatland (Fort Douglas, Utah)
 Scanlan, G. C., De Witt (Carlisle Barracks, Pa.)...Capt., A.U.S.
 Snyder, D. C., De Witt (APO 520, New York, N. Y.)...Capt., A.U.S.
 Speigel, I. J., Clinton (Galesburg, Ill.).....Capt., A.U.S.
 Van Epps, E. F., Clinton (APO 9921, New York,
 N. Y.).....Capt., A.U.S.
 Waggoner, C. V., Clinton (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Wells, L. L., Clinton (APO 562, New York, N. Y.)...Capt., A.U.S.

Crawford County

Fee, C. H., Denison (APO 696, New York, N. Y.)...Major, A.U.S.
 Grau, A. H., Denison, (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Maire, E. J., Vail (APO 18085, New York, N. Y.)...Capt., A.U.S.
 Wetrich, M. F., Manilla (Topeka, Kan.).....Capt., A.U.S.

Dallas-Guthrie Counties

Butterfield, E. T., Dallas Center (Palm Springs,
 Cal.).....1st Lt., A.U.S.
 Byrnes, A. W., Guthrie Center (Fort Custer, Mich.)...Major, A.U.S.
 Fail, C. S., Adel (Fleet PO, San Francisco, Cal.)...Lt. U.S.N.R.
 Margolin, J. M., Perry (APO 5816, New York,
 N. Y.).....Capt., A.U.S.
 McGilvra, R. I., Guthrie Center (Bethesda, Md.)...Lt., U.S.N.R.
 Mullmann, A. J., Adel (APO 565, San Fran-
 cisco, Cal.).....Capt., A.U.S.
 Nicoll, C. A., Panora (APO 339, New York, N. Y.)...Major, A.U.S.
 Osborn, C. R., Dexter (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Todd, D. W., Guthrie Center (APO 2, New York,
 N. Y.).....Capt., A.U.S.
 Wilke, F. A., Woodward.....Capt., A.U.S.

Davis County

Fenton, C. D., Bloomfield (APO 5253, New York,
 N. Y.).....Capt., A.U.S.
 Gilfillan, G. W., Bloomfield.....Lt. Comdr., U.S.N.R.

Decatur County

Gamet, E. E., Lamoni.....Major, A.U.S.

Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York,
 N. Y.).....Capt., A.U.S.
 Clark, R. E., Manchester (APO 419, New York, N. Y.)
Capt., A.U.S.

Des Moines County

Eigenfeld, M. L., Burlington (Cleveland, Ohio)....1st Lt., A.U.S.
 Heitzman, P. O., Burlington (Fort Lewis, Wash.)...Capt., A.U.S.
 Jenkins, M. C., Burlington (West Point, N. Y.)...Col., A.U.S.
 Lohmann, C. J., Burlington (APO 1055, San Fran-
 cisco, Cal.).....Lt. Col., A.U.S.
 McKitterick, J. C., Burlington (Hamilton,
 R. I.).....Comdr., U.S.N.R.
 Moerke, R. F., Burlington (APO 565, San Francisco,
 Cal.).....Capt., A.U.S.
 Sage, E. C., Burlington (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Dickinson County

Buchanan, J. J., Milford (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Henning, G. G., Milford (San Antonio, Texas)....Major, A.U.S.
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.)...Capt., A.U.S.
 Rodawig, D. F., Spirit Lake (Topeka, Kan.).....Major, A.U.S.

Dubuque County

Anderson, E. E., Dubuque (Bradley Field, Conn.)...Capt., A.U.S.
 Conzett, D. C., Dubuque (APO 887, New York,
 N. Y.).....Lt. Col., A.U.S.
 Cunningham, J. C., Dubuque (Fairfield, Ohio)....Capt., A.U.S.
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.)
Major, A.U.S.
 Entringer, A. J., Dubuque (APO 41, San Francisco,
 Cal.).....Capt., A.U.S.
 Hall, C. B., Dubuque (APO 11381, New York, N. Y.)...Capt., A.U.S.
 Knoll, A. H., Dubuque (San Francisco, Cal.)....Major, A.U.S.
 Langford, W. R., Epworth (Miami Beach, Fla.)...Capt., A.U.S.
 Lavery, H. B., Dubuque (Washington, D. C.)...Lt. Col., A.U.S.
 Leik, D. W., Dubuque (Wichita Falls, Tex.).....Capt., A.U.S.
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.)...Capt., A.U.S.
 Olson, P. F., Dubuque (San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Painter, R. C., Dubuque (Salt Lake City, Utah)....Lt., U.S.N.R.
 Paulus, J. W., Dubuque (APO 115, New York,
 N. Y.).....Capt., A.U.S.
 Plankers, A. G., Dubuque.....Major, A.U.S.
 Quinn, F. P., Dubuque (Brooklyn N. Y.).....Major, A.U.S.
 Scharle, Theodore, Dubuque (APO 17570, New York,
 N. Y.).....Capt., A.U.S.
 Schueller, C. J., Dubuque (APO 384, New York,
 N. Y.).....1st Lt., A.U.S.
 Sharpe, D. C., Dubuque (APO 562, New York,
 N. Y.).....Major, A.U.S.
 Smith, C. W., Dubuque (Shoemaker, Cal.).....Lt., U.S.N.R.
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.)...Lt. Col., A.U.S.
 Straub, J. J., Dubuque (Bethesda, Md.).....Lt. Comdr., U.S.N.R.
 Ward, D. F., Dubuque (Great Lakes, Ill.).....Lt. Comdr., U.S.N.R.

Emmet County

Clark, J. P., Estherville (APO New York, N. Y.)...Major, A.U.S.
 Collins, L. E., Estherville (APO 247, San Fran-
 cisco, Cal.).....1st Lt., A.U.S.
 Miller, O. H., Estherville (Seattle, Wash.)...Lt. Comdr., U.S.N.R.

Fayette County

Gallagher, J. P., Oelwein (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Henderson, W. B., Oelwein (St. Louis, Mo.)...Lt. Col., A.U.S.
 Sulzbach, J. F., Oelwein
 Walsh, E. W., Hawkeye (Huntington, W. Va.)...A.U.S.
 Walsh, W. E., Hawkeye (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.

Floyd County

Baltzell, W. C., Charles City (APO 2, New York,
 N. Y.).....Major, A.U.S.
 Flater, N. C., Floyd (APO 350, New York, N. Y.)...Capt., A.U.S.
 Huber, R. H., Charles City (Detroit, Mich.).....A.U.S.
 Knight, R. A., Rockford (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Mackie, D. G., Charles City (APO 215, New York,
 N. Y.).....Capt., A.U.S.
 Magdsick, Carl, Charles City (Fleet PO, San Fran-
 cisco, Cal.).....Lt. (jg), U.S.N.R.
 Miner, J. B., Jr., Charles City (San Diego, Cal.)...Lt., U.S.N.R.
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.)
Capt., A.U.S.

Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) 1st Lt., A.U.S.
 Hedgecock, L. E., Hampton (Camp Lejeune,
 N. Car.).....Lt. Comdr., U.S.N.R.
 Randall, W. L., Hampton (Oceanside, Cal.)...Lt., U.S.N.R.
 Walton, S. G., Hampton (APO New York, N. Y.)...Capt., A.U.S.

Fremont County

Kerr, W. H., Hamburg (APO 926, San Francisco,
 Cal.).....Capt., A.U.S.
 Marrs, W. D., Tabor (Ardmore, Okla.).....Capt., A.U.S.
 Powell, R. A., Farragut (Fleet PO, San Fran-
 cisco, Cal.).....Lt. (jg), U.S.N.R.
 Wanamaker, A. R., Hamburg (APO 729, Seattle,
 Wash.).....Major, A.U.S.

Greene County

Cartwright, F. P., Grand Junction (APO 511, New York,
 N. Y.).....Capt., A.U.S.
 Castles, W. A., Rippey (APO 958, San Francisco, Cal.)
Major, A.U.S.
 Hanson, L. C., Jefferson.....Capt., A.U.S.
 Jongewaard, A. J., Jefferson (Fleet PO, San
 Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Limburg, J. I., Jr., Jefferson (APO 927, San Francisco,
 Cal.).....Major, A.U.S.
 Lohr, P. E., Churdan (Cleveland, Ohio).....Lt., U.S.N.R.

Grundy County

Cullison, R. M., Dike (Fort Howard, Md.).....Major, A.U.S.
 Rose, J. E., Grundy Center (Fleet PO, New York,
 N. Y.).....Lt. Comdr., U.S.N.R.

Hamilton County

Buxton, O. C., Webster City.....Capt., A.U.S.
 Howar, B. F., Jewell (San Antonio, Texas)....Major, A.U.S.
 James, D. W., Kamrar (APO 464, New York, N. Y.)
Capt., A.U.S.
 Lewis, W. B., Webster City (APO 383, New York,
 N. Y.).....Major, A.U.S.
 Mooney, F. P., Jewell (APO 339, New York, N. Y.)...Capt., A.U.S.
 Paschal, G. A., Williams (Camp Crowder, Mo.)...Capt., A.U.S.
 Patterson, R. A., Webster City (San Diego,
 Cal.).....Lt. Comdr., U.S.N.R.
 Ptacek, J. L., Webster City (APO 140, New York,
 N. Y.).....Capt., A.U.S.
 Schrader, M. A., Webster City (Topeka, Kan.)...1st Lt., A.U.S.
 Thompson, E. D., Webster City (Biloxi, Miss.)...Capt., A.U.S.

Hancock-Winnebago Counties

Dulmes, A. H., Klemme (APO 782, New York,
 N. Y.).....Capt., A.U.S.
 Eller, L. W., Kanawha (APO 302, New York,
 N. Y.).....Capt., A.U.S.
 Irish, T. J., Forest City (Fleet PO, San Fran-
 cisco, Cal.).....Lt. Comdr., U.S.N.R.
 Shaw, D. F., Britt (APO 334, San Francisco, Cal.)...Major, A.U.S.
 Thomas, C. W., Forest City (APO 519, New York,
 N. Y.).....Major, A.U.S.

Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.)...Lt., U.S.N.R.
 Houlihan, F. W., Ackley (APO 860, New York,
 N. Y.).....1st Lt., A.U.S.
 Jansonius, J. W., Eldora.....Capt., A.U.S.
 Johnson, R. J., Iowa Falls (APO 514, New York,
 N. Y.).....Capt., A.U.S.
 Johnson, W. A., Alden (Orlando, Fla.).....Capt., A.U.S.
 Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Todd, V. S., Eldora (APO 70, San Francisco, Cal.)...Capt., A.U.S.

Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Ord, Cal.)... Capt., A.U.S.
 Burbridge, G. E., Logan (APO 511, New York, N. Y.)... Major, A.U.S.
 Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.)... Capt., A.U.S.
 Heise, C. A., Jr., Missouri Valley (Fleet PO, San Francisco, Cal.)... Lt., U.S.N.R.
 Tamisiea, F. X., Missouri Valley (APO 562, New York, N. Y.)... Capt., A.U.S.

Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.)... Major, A.U.S.
 Cogan, Samuel, Mt. Pleasant
 Dwankowski, Carl, Mt. Pleasant (APO 511, New York, N. Y.)... Major, A.U.S.
 Gloeckler, B. B., Mount Pleasant (APO 9768, New York, N. Y.)... Capt., A.U.S.
 Hordley, B. D., Mount Pleasant (Galesburg, Ill.)... Capt., A.U.S.
 Megorden, W. H., Mount Pleasant (Ogden, Utah)... Capt., A.U.S.
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.)... Major, A.U.S.

Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.)... Lt., U.S.N.R.
 Nierling, P. A., Cresco (APO 43, San Francisco, Cal.)... Capt., A.U.S.

Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.)... Capt., A.U.S.
 Coddington, J. H., Humboldt (Oklahoma City, Okla.)... Capt., A.U.S.

Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.)... Capt., A.U.S.
 Martin, J. W., Holstein (Albany, Ga.)... Capt., A.U.S.

Iowa County

Geiger, U. S., North English (San Diego, Cal.)... Lt. Comdr., U.S.N.R.
 McDaniel, J. D., Marengo (APO 1010, San Francisco, Cal.)... Capt., A.U.S.
 Miller, D. F., Williamsburg (San Diego, Cal.)... Lt., U.S.N.R.

Jackson County

Bausch, R. G., Bellevue (APO 251, New York, N. Y.)... Capt., A.U.S.
 Skelley, P. B., Jr., Maquoketa (APO 247, San Francisco, Cal.)... 1st Lt., A.U.S.
 Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.)... Major, A.U.S.

Jasper County

Doake, Clarke, Newton... 1st Lt., A.U.S.
 Minkel, R. M., Newton (APO New York, N. Y.)... Lt. Col., A.U.S.
 Ritchey, S. J., Newton... Lt. Col., A.U.S.

Jefferson County

Castell, J. W., Fairfield (Ballinger, Texas)... Capt., A.U.S.
 Frey, Harry, Fairfield (Norfolk, Va.)... Lt. Comdr., U.S.N.R.
 Gittler, Ludwig, Fairfield... Lt. Col., A.U.S.
 Graber, H. E., Fairfield (APO 18642, San Francisco, Cal.)... Major, A.U.S.
 Taylor, I. C., Fairfield (Washington, D. C.)... 1st Lt., A.U.S.

Johnson County

Agnew, J. W., Iowa City (APO 17604, New York, N. Y.)... Capt., A.U.S.
 Albert, S. M., Iowa City (APO 9622, New York, N. Y.)... 1st Lt., A.U.S.
 Allen, J. H., Iowa City (Scott Field, Ill.)... Major, A.U.S.
 Anderson, E. N., Iowa City (APO 647, New York, N. Y.)... Major, A.U.S.
 Boyd, E. J., Iowa City (APO 140, New York, N. Y.)... Capt., A.U.S.
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco, Cal.)... Lt. Col., A.U.S.
 Bunge, R. G., Iowa City (Orlando, Fla.)... Capt., A.U.S.
 Callahan, G. D., Iowa City (Fleet PO, San Francisco, Cal.)... Lt., U.S.N.R.
 Coburn, F. E., Iowa City (Toronto, Canada)... Capt., R.C.A.
 Cooper, W. K., Iowa City (Mitchell Field, N. Y.)... Capt., A.U.S.
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.)... Capt., A.U.S.
 Diddle, A. W., Iowa City (Fleet PO, San Francisco, Cal.)... Lt., U.S.N.R.
 Dorner, R. A., Iowa City (APO 230, New York, N. Y.)... Capt., A.U.S.
 Elmquist, H. S., Iowa City (San Diego, Cal.)... Lt. Comdr., U.S.N.R.
 Emmons, M. B., Iowa City (Camp Bowie, Texas)... Capt., A.U.S.
 Field, Grace E., Iowa City (APO 394, New York, N. Y.)... Major, U.S.P.H.S.
 Flax, Ellis, Iowa City (APO 5833, New York, N. Y.)... 1st Lt., A.U.S.
 Flynn, J. E., Iowa City (Hot Springs, Ark.)... Major, A.U.S.
 Fourt, A. S., Iowa City (APO 34, New York, N. Y.)... Lt. Col., A.U.S.
 Francis, N. L., Iowa City (Annapolis, Md.)... Lt. (jg), U.S.N.R.
 Galinsky, L. J., Oakdale (APO 433, New York, N. Y.)... Capt., A.U.S.
 Garlinghouse, R. O., Iowa City (Ft. Riley, Kan.)... Lt. Col., A.U.S.
 Hardin, R. C., Iowa City (APO 508, New York, N. Y.)... Major, A.U.S.
 Hartung, Walter, Iowa City (Camp Carson, Colo.)... Capt., A.U.S.
 Hessin, A. L., Iowa City (APO 452, New York, N. Y.)... Major, A.U.S.
 Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.)... Comdr., U.S.N.R.
 January, L. E., Iowa City (Pyote, Texas)... Major, A.U.S.

Kanealy, J. F., Iowa City (APO 928, San Francisco, Cal.)... 1st Lt., A.U.S.

Keislar, H. D., Iowa City (Washington, D. C.)... Capt., A.U.S.
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.)... Lt., U.S.N.R.
 Laubscher, J. H., Iowa City (Ft. Benning, Ga.)... 1st Lt., A.U.S.
 Longwell, F. H., Iowa City (Daytona, Fla.)... Major, A.U.S.
 Moreland, F. B., Iowa City (Maxwell Field, Ala.)... 1st Lt., A.U.S.
 Nagryf, S. F., Iowa City (Fleet PO, New York, N. Y.)... Lt., U.S.N.R.
 Newman, R. W., Iowa City (Jacksonville, Fla.)... Lt. Comdr., U.S.N.R.
 Parkin, G. L., Iowa City (Mountain Home, Idaho) 1st Lt., A.U.S.
 Paulus, E. W., Iowa City (APO 34, New York, N. Y.)... Lt. Col., A.U.S.
 Petersen, V. W., Iowa City (APO 689, New York, N. Y.)... Col., A.U.S.
 Ringrose, E. J., Iowa City
 Sells, R. L., Jr., Iowa City (Palmdale, Cal.)... Capt., A.U.S.
 Smith, H. F., Iowa City (New York, N. Y.) Lt. Comdr., U.S.N.R.
 Springer, E. W., Iowa City (APO 678, New York, N. Y.)... Capt., A.U.S.
 Stadler, H. E., Iowa City (Washington, D. C.)... 1st Lt., A.U.S.
 Staggs, W. A., Iowa City... Major, A.U.S.
 Stephens, R. L., Iowa City (Orlando, Fla.)... Capt., A.U.S.
 Stump, R. B., Iowa City (Denver, Colo.)... Capt., A.U.S.
 Titus, E. L., Iowa City (Belmont, Mass.)... Col., A.U.S.
 Trapasso, T. J., Iowa City (APO 520, New York, N. Y.)... Capt. A.U.S.
 Trussell, R. E., Iowa City (APO 5467, San Francisco, Cal.)... Capt., A.U.S.
 Voelker, C. A., Jr., Iowa City (Eglin Field, Fla.)... Capt., A.U.S.
 Ward, R. H., Iowa City (Fleet PO, San Francisco, Cal.)... Lt. Comdr., U.S.N.R.
 Weatherly, H. E., Iowa City (APO 72, San Francisco, Cal.)... Capt., A.U.S.
 Wollmann, W. W., Iowa City (Louisville, Ky.)... 1st Lt., A.U.S.
 Ziffren, S. E., Iowa City (Springfield, Mo.)... 1st Lt., A.U.S.

Junior Members

Adams, M. P., Iowa City... Lt. (jg), U.S.N.R.
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.)... A.U.S.
 Ball, A. L., Iowa City (Camp Polk, La.)... Major, A.U.S.
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 Boyd, R. J., Iowa City (Spokane, Wash.)... Capt., A.U.S.
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 Carney, R. G., Iowa City (Fleet PO, San Francisco, Cal.)... Lt., U.S.N.R.
 Connole, J. F., Iowa City (Camp Bowie, Texas)... 1st Lt., A.U.S.
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.)... 1st Lt., A.U.S.
 Coulson, F. H., Iowa City (APO New York, N. Y.)... Capt., A.U.S.
 Decker, C. E., Iowa City (Oklahoma City, Okla.)... 1st Lt., A.U.S.
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 Englerth, F. L., Iowa City (APO San Francisco, Cal.)... Capt., A.U.S.
 Freiberg, M., Iowa City (Jefferson Barracks, Mo.)... A.U.S.
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 Hamilton, H. E., Iowa City (Chicago, Ill.)... 1st Lt., A.U.S.
 Harms, G. E., Iowa City (Carlisle Barracks, Penn.)... 1st Lt., A.U.S.
 Hendricks, A. B., Iowa City (Klamath Falls, Ore.)... Lt., U.S.N.
 Hovis, Wm., Iowa City (Fleet PO, San Francisco, Cal.)... Lt. (jg), U.S.N.R.
 Ide, L. W., Iowa City (Fort Warren, Wyo.)... 1st Lt., A.U.S.
 Jacobs, C. A., Iowa City (APO New York, N. Y.) Major, A.U.S.
 Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.)... 1st Lt., A.U.S.
 Kell, P. G., Iowa City (Sioux City, Iowa)... 1st Lt., A.U.S.
 Kelberg, M. R., Iowa City (Alameda, Cal.)... Lt., U.S.N.R.
 Keleher, M. F., Iowa City (Great Lakes, Ill.)... Lt. (jg), U.S.N.R.
 Kugler, F. E., Iowa City (Fort Warren, Wyo.)... Capt., A.U.S.
 Lowry, F. C., Iowa City (Sioux Falls, S. D.)... 1st Lt., A.U.S.
 McCann, J. P., Iowa City (Carlisle Barracks, Penn.)... 1st Lt., A.U.S.
 McQuiston, W. O., Iowa City (APO San Francisco, Cal.)... Capt., A.U.S.
 Moen, B. H., Iowa City
 Moon, R. E., Iowa City (APO New York, N. Y.)... 1st Lt., A.U.S.
 Odell, Lester, Iowa City (Pensacola, Fla.)... Lt. (jg), U.S.N.R.
 Phillips, R. M., Iowa City (San Francisco, Cal.)... 1st Lt., A.U.S.
 Pulliam, R. L., Iowa City (APO 350, New York, N. Y.)... Major, A.U.S.
 Randall, C. G., Iowa City
 Randall, R. G., Iowa City (Waterloo, Iowa)... Capt., A.U.S.
 Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.)... 1st Lt., A.U.S.
 Russin, L. A., Iowa City (Fort Blanding, Fla.)... Capt., A.U.S.
 Saar, J. L., Iowa City (APO New York, N. Y.)... Capt., A.U.S.
 Sawtelle, W. W., Iowa City... Lt., U.S.N.R.
 Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.)... 1st Lt., A.U.S.
 Shand, J. A., Iowa City (Carlisle Barracks, Penn.)... 1st Lt., A.U.S.
 Shapiro, S. I., Iowa City
 Simpson, F. E., Iowa City (Camp Grant, Ill.)... A.U.S.
 Skewis, J. E., Iowa City (Corona, Cal.)... Lt., U.S.N.R.
 Skouge, O. T., Iowa City

Towle, R. A., Iowa City (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Warren, R. F., Iowa City (Santa Barbara, Cal.) A.U.S.
 Watters, V. G., Iowa City (Fort Leonard Wood, Mo.) 1st Lt., A.U.S.
 Wicks, W. J., Iowa City (Camp Crowder, Mo.) Capt., A.U.S.
 Williams, L. A., Iowa City (Treasure Island, Cal.) 1st Lt., A.U.S.
 Willumsen, H. C., Iowa City (Denver, Colo.) Capt., A.U.S.
 Wolkin, J., Iowa City (San Antonio, Texas) Capt., A.U.S.
 Yetter, W. L., Iowa City (APO New York, N. Y.) Capt., A.U.S.
 Zahrt, N. E., Iowa City (Keesler Field, Miss.) Capt., A.U.S.
 Zimmerman, H. A., Iowa City (Santa Ana, Cal.) 1st Lt., A.U.S.

Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.) Capt., A.U.S.
 Doyle, J. L., Sigourney (Camp Berkeley, Texas) A.U.S.
 Engelmenn, A. T., What Cheer (Camp Polk, La.) Capt., A.U.S.
 Graham, J. A., Gibson (Needles, Cal.) 1st Lt., A.U.S.
 Montgomery, G. E., Keota (Antioch, Cal.) Capt., A.U.S.

Kossuth County

Clapsaddle, D. W., Burt (Manhattan, Kan.) Capt., A.U.S.
 Corbin, R. L., Luverne (Des Moines, Iowa) Capt., A.U.S.
 Kenefick, J. N., Algona Lt. Comdr., U.S.N.R.
 Williams, R. L., Lakota (Iowa City, Iowa) Lt. Comdr., U.S.N.R.

Lee County

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.
 Cleary, H. G., Fort Madison (Ft. Benning, Ga.) Capt., A.U.S.
 Cooper, R. E., Keokuk (APO 665, San Francisco, Cal.) Capt., A.U.S.
 Johnstone, A. A., Keokuk (APO 942, Seattle, Wash.) Col., A.U.S.
 McKee, T. L., Keokuk (Miami Beach, Fla.) Major, A.U.S.
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) Major, A.U.S.
 Rankin, J. R., Keokuk (Memphis, Tenn.) Lt., U.S.N.R.
 Richmond, A. C., Fort Madison (San Bruno, Cal.) Lt. Comdr., U.S.N.R.
 Steffey, F. L., Keokuk (Fort Snelling, Minn.) Capt., A.U.S.
 Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.) Capt., A.U.S.
 Younan, Thomas, Ft. Madison (APO 758, New York, N. Y.) Capt., A.U.S.

Linn County

Andre, G. R., Lisbon (APO 90, New York, N. Y.) Lt. Col., A.U.S.
 Berney, P. W., Cedar Rapids (APO 519-A, New York, N. Y.) Major, A.U.S.
 Block, W. M., Cedar Rapids (APO 159, San Francisco, Cal.) Capt., A.U.S.
 Cbapman, R. M., Cedar Rapids (Chicago, Ill.) Capt., A.U.S.
 Coughlan, V. H., Coggon (Fort Snelling, Minn.) A.U.S.
 Courter, W. O., Springville (APO 464, New York, N. Y.) Major, A.U.S.
 Downing, J. S., Cedar Rapids (Colorado Springs, Colo.) Lt. Col., A.U.S.
 Dunn, F. C., Cedar Rapids (Winfield, Kan.) Major, A.U.S.
 Gearhart, Merriam, Springville (APO 513, New York, N. Y.) Major, A.U.S.
 Gerstman, Herbert, Marion (APO 862, New York, N. Y.) Capt., A.U.S.
 Halpin, L. J., Cedar Rapids (APO 957, San Francisco, Cal.) Major, A.U.S.
 Hecker, J. T., Cedar Rapids (APO 758, New York, N. Y.) Capt., A.U.S.
 Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.) Lt. Col., A.U.S.
 Keith, J. J., Marion (Menlo Park, Cal.) Major, A.U.S.
 Kieck, E. G., Cedar Rapids (San Diego, Cal.) Lt. Comdr., U.S.N.R.
 Kruckenberg, W. G., Mount Vernon (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Leedham, C. L., Springville (Camp Campbell, Ky.) Col., A.U.S.
 Locher, R. C., Cedar Rapids (APO 230, New York, N. Y.) Major, A.U.S.
 †MacDougal, R. F., Cedar Rapids (APO 9057, New York, N. Y.) Capt., A.U.S.
 McConkie, E. B., Cedar Rapids (Hines, Ill.) Major, A.U.S.
 McQuiston, J. S., Cedar Rapids (Fort Warren, Wyo.) Lt. Col., A.U.S.
 Meffert, C. B., Cedar Rapids (APO 403, New York, N. Y.) Lt. Col., A.U.S.
 Murray, E. S., Cedar Rapids (APO 512, New York, N. Y.) Lt. Col., A.U.S.
 Netolicky, R. Y., Cedar Rapids (Hawthorne, Nev.) Lt. Comdr., U.S.N.R.
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.) 1st Lt., A.U.S.
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.) Major, A.U.S.
 Parke, John, Cedar Rapids Major, A.U.S.
 Proctor, R. D., Cedar Rapids (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) Major, A.U.S.
 Rieniets, J. H., Cedar Rapids, (Charleston, S. Car.) Lt. Comdr., U.S.N.R.
 Sedlacek, L. B., Cedar Rapids (APO 244, San Francisco, Cal.) Lt. Col., A.U.S.
 Smrha, J. A., Cedar Rapids (Topeka, Kan.) Capt., A.U.S.
 Stansbury, J. R., Cedar Rapids (Fort Lewis, Wash.) Capt., A.U.S.
 Sulek, A. E., Cedar Rapids (APO 244, San Francisco, Cal.) Major, A.U.S.
 Woodhouse, K. W., Cedar Rapids (APO 519, New York, N. Y.) Col., A.U.S.
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) Major, A.U.S.

Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.) Lt. Comdr., U.S.N.

Louisa County

DeYarman, K. T., Morning Sun (San Antonio, Texas) Capt., A.U.S.
 Tandy, R. W., Morning Sun (Oakland, Cal.) Lt. Comdr., U.S.N.R.

Lucas County

Lister, K. E., Chariton (Fort Snelling, Minn.) A.U.S.

Lyon County

Cook, S. H., Rock Rapids (Lordsburg, N. Mex.) Major, A.U.S.
 †Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Oflag 64, Germany) Capt., A.U.S.
 Moriarty, J. F., Rock Rapids Capt., A.U.S.

Madison County

Boden, H. N., Truro (Fresno, Cal.) Capt., A.U.S.
 Chesnut, P. F., Winterset (Camp Gruber, Okla.) Capt., A.U.S.
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) Capt., A.U.S.
 Wicks, R. L., Winterset (APO 204, New York, N. Y.) Lt. Col., A.U.S.

Mahaska County

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.) Major, A.U.S.
 Bos, H. C., Oskaloosa (APO 758, New York, N. Y.) Major, A.U.S.
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Clark, G. H., Oskaloosa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Gillett, R. M., Oskaloosa (Fleet PO, San Francisco, Cal.) Capt., U.S.N.R.
 Greenlee, M. R., Oskaloosa (Port Hueneme, Cal.) Lt. Comdr., U.S.N.R.
 Hibbs, R. E., Oskaloosa Major, A.U.S.
 Keohen, G. F., Oskaloosa (Washington, D. C.) Major, A.U.S.
 Lemon, K. M., Oskaloosa (APO 637, New York, N. Y.) Capt., A.U.S.
 Reiley, R. E., Oskaloosa (APO 502, San Francisco, Cal.) Major, A.U.S.
 Sturts, J. J., Oskaloosa (Fort Mason, Cal.) Capt., A.U.S.
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.) Capt., A.U.S.

Marion County

Elliott, V. J., Knoxville (APO 558, New York, N. Y.) Major, A.U.S.
 Mater, D. A., Knoxville (Lincoln, Neb.) Major, A.U.S.
 Ralston, F. P., Knoxville (Indio, Cal.) Capt., A.U.S.
 Schiek, C. M., Knoxville Lt. Comdr., U.S.N.R.
 Schroeder, M. C., Pella (Camp Livingston, La.) Capt., A.U.S.
 Williams, D. B., Knoxville Capt., A.U.S.

Marshall County

Carpenter, R. C., Marshalltown (APO 678 New York, N. Y.) Capt., A.U.S.
 Marble, E. J., Marshalltown (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Marble, W. P., Marshalltown (Colorado Springs, Colo.) Major, A.U.S.
 Meyer, M. G., Marshalltown (APO 513, New York, N. Y.) Major, A.U.S.
 Noonan, J. J., Marshalltown (Fort Jackson, S. Car.) Lt. Col., A.U.S.
 Phelps, R. E., State Center (APO 7, San Francisco, Cal.) Capt., A.U.S.
 Sinning, J. E., Melbourne (Rochester, Minn.) Capt., A.U.S.
 Smith, E. M., State Center (APO 520, New York, N. Y.) Lt. Col., A.U.S.
 Stegman, J. J., Marshalltown (APO 520, New York, N. Y.) Major, A.U.S.
 Wells, R. C., Marshalltown (Gowen Field, Idaho) Capt., A.U.S.
 Wolfe, O. D., Marshalltown (APO 938, Minneapolis, Minn.) Capt., A.U.S.
 Wolfe, R. M., Marshalltown (Mirimar, Cal.) Lt., U.S.N.R.

Mills County

DeYoung, W. A., Glenwood (APO 228, New York, N. Y.) Capt., A.U.S.
 Kuitert, J. H., Glenwood (St. Cloud, Minn.) Major, A.U.S.
 Margaret, E. C., Glenwood (APO 973, Minneapolis, Minn.) Capt., A.U.S.
 Shonka, T. E., Malvern (APO 403, New York, N. Y.) Capt., A.U.S.

Mitchell County

Culbertson, R. A., St. Ansgar (APO 331, San Francisco, Cal.) Lt. Col., A.U.S.
 Moore, E. E., Osage (APO 591, New York, N. Y.) Major, A.U.S.
 Owen, W. E., Osage (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
 Walker, T. G., Riceville (Fleet PO, New York, N. Y.) Lt., U.S.N.R.

Monona County

Almer, L. E., Moorhead (Fort Knox, Ky.) Capt., A.U.S.
 Anderson, S. N., Onawa (Great Lakes, Ill.) Lt., U.S.N.R.
 Ganzhorn, H. L., Mapleton (APO 72, San Francisco, Cal.) Capt., A.U.S.
 Gaukel, L. A., Onawa (Fort Riley, Kan.) Capt., A.U.S.

†Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Stauch, M. O., Whiting (Fort Lewis, Wash.).....Major, A.U.S.
 Wainwright, M. T., Mapleton (Hines, Ill.).....Capt., A.U.S.
 Wolpert, P. L., Onawa (Camp Atterbury, Ind.).....Capt., A.U.S.

Monroe County

Bay, F. N., Albion.....Lt. Comdr., U.S.N.R.
 Gilliland, C. H., Albion (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Heimann, V. R., Albion (Camp Maxey, Texas).....Capt., A.U.S.
 Richter, H. J., Albion (Waco, Texas).....Major, A.U.S.
 Smith, R. A., Albion (New Cumberland, Pa.).....Capt., A.U.S.

Montgomery County

Bastron, H. C., Red Oak (APO 951, San Francisco, Cal.).....Major, A.U.S.
 Hansen, F. A., Red Oak (Clarksville, Ark.).....Lt., U.S.N.R.
 Nelson, C. C., Red Oak.....Lt., U.S.N.R.
 Panzer, E. J. C., Stanton (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Rost, G. S., Red Oak (Halstead, Kan.).....Capt., A.U.S.
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.).....Capt., A.U.S.

Muscatine County

Ady, A. E., West Liberty (Beaufort, S. Car.).....Comdr., U.S.N.R.
 Asthalter, R. W., Muscatine (Fort Meade, Md.).....1st Lt., A.U.S.
 Carlson, E. H., Muscatine (Louisville, Ky.).....Major, A.U.S.
 Goad, R. R., Muscatine (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa).....Major, A.U.S.
 Lindley, E. L., Muscatine (APO 6, San Francisco, Cal.).....Capt., A.U.S.
 Muhs, E. O., Muscatine (APO 578, New York, N. Y.).....Major, A.U.S.
 Norem, Walter, Muscatine (APO Miami, Fla.).....Capt., A.U.S.
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.).....Capt., A.U.S.
 Sywassink, G. A., Muscatine (APO 488-“Y” Forces, New York, N. Y.).....Lt. Col., A.U.S.
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.).....Lt. Col., A.U.S.

O'Brien County

Getty, E. B., Primghar (APO 153, New York, N. Y.).....Capt., A.U.S.
 Hayne, W. W., Paullina (APO 638, New York, N. Y.).....Capt., A.U.S.
 Moen, S. T., Hartley.....Lt. Col., A.U.S.
 Myers, K. W., Sheldon (Topeka, Kan.).....Capt., A.U.S.

Osceola County

Kuntz, G. S., Sibley (APO 34, New York, N. Y.).....Capt., A.U.S.

Page County

Barnes, C. A., Shenandoah (APO New York, N. Y.).....Capt., A.U.S.
 Bauer, Frank, Shenandoah (APO New York, N. Y.).....A.U.S.
 Blackman, Nathan, Clarinda (Ft. Benj. Harrison, Ind.).....Major, A.U.S.
 Bossingham, E. N., Clarinda (Fort Ord, Cal.).....Major, A.U.S.
 Brush, Frederick, Shenandoah (APO New York, N. Y.).....A.U.S.
 Bunch, H. McK., Shenandoah (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 Burdick, F. D., Shenandoah (Denver, Colo.).....Capt., A.U.S.
 Burnett, F. K., Clarinda (APO 777, New York, N. Y.).....Major, A.U.S.
 Rausch, G. R., Clarinda (Sioux City, Iowa).....Capt., A.U.S.
 Savage, L. W., Shenandoah (Fort Meade, Md.).....1st Lt., A.U.S.
 Schwidde, Tilford, Shenandoah (APO New York, N. Y.).....A.U.S.

Palo Alto County

Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.

Plymouth County

Bowers, C. V., LeMars (APO New York, N. Y.).....1st Lt., A.U.S.
 Fisch, R. J., LeMars (Denver, Colo.).....Capt., A.U.S.
 Foss, R. H., Remsen (Homestead, Fla.).....Capt., A.U.S.
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.).....Lt. Col., A.U.S.

Pocahontas County

Blair, F. L., Jr., Fonda (San Antonio, Texas).....Lt., U.S.N.R.
 Herrick, T. G., Gilmore City (APO 9875, New York, N. Y.).....Capt., A.U.S.
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.).....Capt., A.U.S.
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.).....Capt., A.U.S.
 Patterson, A. W., Fonda (Des Moines, Iowa).....Capt., A.U.S.

Polk County

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Anderson, N. B., Des Moines (APO 667, New York, N. Y.).....Col., A.U.S.
 Angell, C. A., Des Moines (APO 408, New York, N. Y.).....Capt., A.U.S.
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.).....Lt. Col., A.U.S.
 Barner, J. L., Des Moines (Atlanta, Ga.).....Major, A.U.S.
 Barnes, B. C., Des Moines (APO 1009, San Francisco, Cal.).....Major, A.U.S.
 Bates, M. T., Des Moines (Corona, Cal.).....Lt. Comdr., U.S.N.R.
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Bond, T. A., Des Moines (Shoemaker, Cal.).....Lt., U.S.N.R.
 Bone, H. C., Des Moines (Arlington, Cal.).....Major, A.U.S.

Brown, A. W., Des Moines (APO 5934, New York, N. Y.).....Capt., A.U.S.
 Bruner, J. M., Des Moines (El Paso, Texas).....Major, A.U.S.
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Burgess, F. M., Des Moines (Hot Springs, Ark.).....Capt., A.U.S.
 Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada).....Flight Lt., R.C.A.F.
 Chambers, J. W., Des Moines (APO 667, New York, N. Y.).....Capt., A.U.S.
 Chase, W. B., Jr., Des Moines.....Lt., U.S.N.R.
 Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.).....Capt., A.U.S.
 Connell, J. R., Des Moines (APO 507, New York, N. Y.).....Major, A.U.S.
 Corn, H. H., Des Moines (Camp Beale, Cal.).....Capt., A.U.S.
 Coughlan, D. W., Des Moines (APO 689, New York, N. Y.).....Major, A.U.S.
 Crowley, D. F., Jr., Des Moines (Manchester, N. H.).....Major, A.U.S.
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.).....Capt., A.U.S.
 DeCicco, Ralph, Des Moines (APO 952, San Francisco, Cal.).....Capt., A.U.S.
 Decker, H. G., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Downing, A. H., Des Moines (Clinton, Iowa).....Capt., A.U.S.
 Dushkin, M. A., Des Moines (APO 689, New York, N. Y.).....Lt. Col., A.U.S.
 Elliott, O. A., Des Moines (La Junta, Colo.).....Capt., A.U.S.
 Ellis, H. G., Des Moines (APO 710, San Francisco, Cal.).....Capt., A.U.S.
 Ervin, L. J., Des Moines (Victoria, Texas).....Lt. Col., A.U.S.
 Fleck, W. L., Des Moines (Ft. Howard, Md.).....Lt. Col., A.U.S.
 Fried, David, Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Fracasse, John, Des Moines.....1st Lt., A.U.S.
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Gerchek, E. W., Des Moines
 Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.).....Major, A.U.S.
 Glomset, D. A., Des Moines (APO 152, New York, N. Y.).....Capt., A.U.S.
 Goldberg, Louie, Des Moines (APO 926, San Francisco, Cal.).....Capt., A.U.S.
 Gordon, A. M., Des Moines (APO 464, New York, N. Y.).....Capt., A.U.S.
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Greek, L. M., Des Moines (APO 758, New York, N. Y.).....Capt., A.U.S.
 Gurau, H. H., Des Moines (Austin, Texas).....Capt., A.U.S.
 Haines, D. J., Des Moines (APO 75, San Francisco, Cal.).....Capt., A.U.S.
 Harris, D. D., Des Moines (Gulfport, Miss.).....Lt. Comdr., U.S.N.R.
 Harris, H. L., Des Moines (Salina, Kan.).....1st Lt., A.U.S.
 Hess, John, Jr., Des Moines.....1st Lt., A.U.S.
 James, A. D., Des Moines (Fort Eustis, Va.).....Comdr., U.S.N.R.
 Johnston, C. H., Des Moines (Spokane, Wash.).....Lt. Col., A.U.S.
 Kast, D. H., Des Moines (Fort Stevens, Ore.).....Capt., A.U.S.
 Kelley, E. J., Des Moines (Columbus, Ohio).....Lt. Comdr., U.S.N.R.
 Kirch, W. A. W., Des Moines (Astoria, Ore.).....Lt. Comdr., U.S.N.R.
 Klocksiem, H. L., Des Moines (APO New York, N. Y.).....Capt., A.U.S.
 Landis, S. N., Des Moines (West Palm Beach, Fla.).....1st Lt., A.U.S.
 La Tona, Salvatore, Des Moines.....1st Lt., A.U.S.
 Lederman, James, Des Moines.....1st Lt., R.C.A.
 Lehman, E. W., Des Moines (APO 565, San Francisco, Cal.).....Major, A.U.S.
 Losh, C. W., Jr., Des Moines (APO 209, New York, N. Y.).....Capt., A.U.S.
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Maloney, P. J., Des Moines (Fort Lewis, Wash.).....1st Lt., A.U.S.
 Marquis, G. S., Des Moines (Brooklyn, N. Y.).....Lt. Comdr., U.S.N.R.
 Martin, L. E., Des Moines (Helena, Ark.).....1st Lt., A.U.S.
 Matheson, J. H., Des Moines (San Leandro, Cal.).....Lt. Comdr., U.S.N.R.
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.).....Capt., A.U.S.
 McCoy, H. J., Des Moines (Iowa City, Iowa).....Comdr., U.S.N.R.
 McDonald, D. J., Des Moines (APO 339, New York, N. Y.).....Major, A.U.S.
 McNamee, J. H., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Mencher, E. W., Des Moines.....1st Lt., A.U.S.
 Merkel, B. M., Des Moines (Denver, Colo.).....Major, A.U.S.
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.).....Capt., A.U.S.
 †Morden, R. P., Des Moines (APO 635, New York, N. Y.).....Capt., A.U.S.
 Mumma, C. S., Des Moines (Los Angeles, Cal.).....Major, A.U.S.
 Murphy, J. H., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Nelson, A. L., Des Moines (Camp Livingston, La.).....Major, A.U.S.
 Noun, L. J., Des Moines (Newport, R. I.).....Lt., U.S.N.R.
 Noun, M. H., Des Moines (APO 228, New York, N. Y.).....Major, A.U.S.
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.
 Overton, L. M., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

Patton, B. W., Des Moines (Camp Robinson, Ark.).....1st Lt., A.U.S.
 Pearlman, L. R., Des Moines (San Antonio, Texas).....Major, A.U.S.
 Peisen, C. J., Des Moines (APO 165, New York, N. Y.).....Major, A.U.S.
 Penn, E. C., West Des Moines (APO 650, New York, N. Y.).....Capt., A.U.S.
 Pfeiffer, E. P., Des Moines (APO 501, San Francisco, Cal.).....Capt., A.U.S.
 Phillips, A. B., Des Moines (Corona, Cal.).....Lt., U.S.N.R.
 Porter, R. J., Des Moines (APO 635, New York, N. Y.).....Capt., A.U.S.
 Powell, L. D., Des Moines (Fleet PO, San Francisco, Cal.).....Capt., U.S.N.R.
 Pratt, E. B., Des Moines (APO New York, N. Y.).....Lt. Col., A.U.S.
 Priestley, J. B., Des Moines (APO 689, New York, N. Y.).....Lt. Col., A.U.S.
 Purdy, W. O., Des Moines (APO 562, New York, N. Y.).....Major, A.U.S.
 Riegelman, R. H., Des Moines.....Major, A.U.S.
 Robinson, V. C., Des Moines (Gulfport, Miss.).....Major, A.U.S.
 Rotkow, M. J., Des Moines (Camp Atterbury, Ind.).....Capt., A.U.S.
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Schlaser, V. L., Des Moines (Hutchinson, Kan.).....Lt., U.S.N.
 Shepherd, L. K., Des Moines (APO New York, N. Y.).....Major, A.U.S.
 Shiffer, H. K., Des Moines (APO 230, New York, N. Y.).....Capt., A.U.S.
 Singer, P. L., Des Moines (Camp Grant, Ill.).....1st Lt., A.U.S.
 Skultety, J. A., Des Moines (New Orleans, La.).....P. A. Surg., U.S.P.H.S.
 Smead, H. H., Des Moines (APO 595, New York, N. Y.).....Capt., A.U.S.
 Smith, H. J., Des Moines (Chicago, Ill.).....Lt., U.S.N.R.
 Smith, R. T., Des Moines (APO 713, Unit I, San Francisco, Cal.).....Capt., A.U.S.
 *Snodgrass, R. W., Des Moines (APO 9528, New York, N. Y.).....Capt., A.U.S.
 Snyder, G. E., Grimes (APO 264, San Francisco, Cal.).....Major, A.U.S.
 Sohm, H. A., Des Moines (Des Moines, Ia.).....Lt. Comdr., U.S.N.R.
 Sorensen, R. M., Des Moines (Topeka, Kan.).....Major, U.S.P.H.S.
 Springer, F. A., Des Moines (Treasure Island, Cal.).....Lt. Comdr., U.S.N.R.
 Stearns, A. B., Des Moines (Denver, Colo.).....Major, A.U.S.
 Stickler, Robert, Des Moines (APO New York, N. Y.).....Major, A.U.S.
 Stitt, P. L., Des Moines (Seattle, Wash.).....Lt. (Jg), U.S.N.R.
 Throckmorton, J. F., Des Moines (APO 339, New York, N. Y.).....Major, A.U.S.
 Toubes, A. A., Des Moines (APO 635, New York, N. Y.).....Capt., A.U.S.
 Turner, H. V., Des Moines (Camp Robinson, Ark.).....Capt., A.U.S.
 Updegraff, Thomas, Des Moines (APO San Francisco, Cal.).....Capt., A.U.S.
 Van Hale, L. A., Des Moines (Clinton, Iowa).....Major, A.U.S.
 Vaubel, E. K., Des Moines (Washington, D. C.).....Capt., A.U.S.
 Wagner, E. C., Des Moines (Washington, D. C.).....1st Lt., A.U.S.
 Willett, W. M., Des Moines (APO 507, New York, N. Y.).....Capt., A.U.S.
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Zarchy, A. C., Des Moines (Camp Cooke, Cal.).....Capt., A.U.S.

Pottawattamie County

†Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.).....Major, A.U.S.
 Collins, R. M., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Dean, A. M., Council Bluffs (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 Edwards, C. V., Council Bluffs (Pensacola, Fla.).....Lt. Comdr., U.S.N.R.
 Floersch, E. B., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Hennessy, J. D., Council Bluffs (Clinton, Okla.).....Lt. Comdr., U.S.N.R.
 Jensen, A. L., Council Bluffs (Ft. Lewis, Wash.).....Lt. Col., A.U.S.
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.).....Lt., U.S.N.R.
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.).....Capt., A.U.S.
 Lambert, E. M., Council Bluffs (APO 403, New York, N. Y.).....Major, A.U.S.
 Maiden, S. D., Council Bluffs (Camp Hood, Texas).....Major, A.U.S.
 Martin, L. R., Council Bluffs (Auburn, Cal.).....Capt., A.U.S.
 Mathiasen, H. W., Neola (Alexandria, La.).....Capt., A.U.S.
 Moskovitz, J. M., Council Bluffs (APO 887, New York, N. Y.).....Capt., A.U.S.
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.).....Capt., A.U.S.
 Standeven, W., Oakland (Colorado Springs, Colo.).....Capt., A.U.S.
 Sternhill, Isaac, Council Bluffs (Camp Crowder, Mo.).....Capt., A.U.S.
 Tinley, R. E., Council Bluffs (APO 600, New York, N. Y.).....Major, A.U.S.
 Treyron, J. V., Council Bluffs (Chicago, Ill.).....Comdr., U.S.N.R.
 West, A. G., Council Bluffs (APO 230, New York, N. Y.).....Capt., A.U.S.
 Wieseler, R. J., Avoca (McChord Field, Wash.).....A.U.S.
 Wurl, O. A., Council Bluffs (APO 887, New York, N. Y.).....Lt. Col., A.U.S.

Poweshieck County

Brobyn, T. E., Grinnell (APO 18593, New York, N. Y.).....Major, A.U.S.
 Hickerson, L. C., Brooklyn (APO 559, New York, N. Y.).....Capt., A.U.S.
 Korfmacher, E. S., Grinnell (APO 923, San Francisco, Cal.).....Capt., A.U.S.
 Niemann, T. V., Brooklyn (APO 43, San Francisco, Cal.).....Capt., A.U.S.
 Parish, J. R., Grinnell (Oakland, Cal.).....Lt. Comdr., U.S.N.R.
 Somers, P. E., Grinnell (Denver, Colo.).....1st Lt., A.U.S.

Ringgold County

Seaman, C. L., Mount Ayr (Fort Smith, Ark.).....Major, A.U.S.

Sac County

Bassett, G. H., Sac City (Mobile, Ala.).....Lt. Comdr., U.S.N.R.
 Deters, D. C., Schaller (APO 34, New York, N. Y.).....Capt., A.U.S.
 Evans, W. I., Sac City (APO 9212, New York, N. Y.).....Capt., A.U.S.
 Klocksism, R. G., Odebolt (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Neu, H. N., Sac City.....Lt. Col., A.U.S.

Scott County

†Baker, R. W., Davenport (APO 511, New York, N. Y.).....Capt., A.U.S.
 Balzer, W. J., Davenport.....Capt., A.U.S.
 Bishop, J. F., Davenport (Camp Wheeler, Ga.).....Capt., A.U.S.
 Block, L. A., Davenport (Cambridge, Ohio).....Major, A.U.S.
 Boden, W. C., Davenport (APO 3760, New York, N. Y.).....Capt., A.U.S.
 Boyer, U. S., Davenport (Rock Island, Ill.).....Lt. Col., A.U.S.
 Brown, M. J., Davenport (APO 562, New York, N. Y.).....Lt. Col., A.U.S.
 Carey, E. T., Davenport (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.
 Christiansen, C. C., Dixon (APO 961, San Francisco, Cal.).....Capt., A.U.S.
 Coleman, Tom, Davenport (APO 230, New York, N. Y.).....Capt., A.U.S.
 Cummins, G. M., Jr., Davenport (Fort Custer, Mich.).....Capt., A.U.S.
 Decker, C. E., Davenport (APO 321, San Francisco, Cal.).....Major, A.U.S.
 Evans, H. J., Davenport (Daytona Beach, Fla.).....Capt., A.U.S.
 Gibson, P. E., Davenport (Palm Springs, Cal.).....Major, A.U.S.
 Goenne, Wm., Jr., Davenport (APO 91, New York, N. Y.).....Capt., A.U.S.
 Hurevitz, H. M., Davenport (APO 370, New York, N. Y.).....Major, A.U.S.
 Hurteau, Everett, Davenport (APO 647, New York, N. Y.).....Capt., A.U.S.
 Hurteau, W. W., Davenport (Camp Barkeley, Texas).....Major, A.U.S.
 Kimberly, L. W., Davenport (Oak Ridge, Tenn.).....Capt., A.U.S.
 Krakauer, Max, Davenport (APO 758, New York, N. Y.).....Capt., A.U.S.
 Kuhl, A. B., Jr., Davenport (Ft. Meade, Md.).....1st Lt., A.U.S.
 Ladage, L. H., Davenport (APO 339, New York, N. Y.).....Major, A.U.S.
 Lorfeld, G. W., Davenport (Columbus, Ohio).....Capt., A.U.S.
 McMeans, T. W., Davenport (APO 557, New York, N. Y.).....Capt., A.U.S.
 Neufeld, R. J., Davenport (APO 565, Unit I, San Francisco, Cal.).....Capt., A.U.S.
 Perkins, R. M., Davenport (APO 121B, New York, N. Y.).....Capt., A.U.S.
 Sheeler, I. H., Davenport (APO 350, New York, N. Y.).....Capt., A.U.S.
 Shorey, J. R., Davenport (APO 204, New York, N. Y.).....Capt., A.U.S.
 Smazal, S. F., Davenport (APO 230, New York, N. Y.).....Capt., A.U.S.
 Sorenson, A. C., Davenport (Oakland, Cal.).....Comdr., U.S.N.R.
 Sunderbruch, J. H., Davenport (APO 70, San Francisco, Cal.).....Capt., A.U.S.
 Weinberg, H. B., Davenport (APO 72, San Francisco, Cal.).....Major, A.U.S.
 Zukerman, C. M., Bettendorf (Chicago, Ill.).....Capt., A.U.S.

Shelby County

Bisgard, C. V., Harlan (Farragut, Idaho).....Lt. Comdr., U.S.N.R.
 Griffith, W. O., Shelby (APO 9490, New York, N. Y.).....Capt., A.U.S.
 McGowan, J. P., Harlan (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

Sioux County

Gleysteen, R. R., Alton (Portsmouth, Va.).....Lt. Comdr., U.S.N.
 Grossmann, E. B., Orange City (APO 403, New York, N. Y.).....Capt., A.U.S.
 Larson, M. O., Hawarden (APO 562, New York, N. Y.).....Lt. Col., A.U.S.
 Oelrich, A. M., Hull (APO New York, N. Y.).....1st Lt., A.U.S.
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.).....1st Lt., A.U.S.

Story County

Conner, J. D., Nevada (APO 73, San Francisco, Cal.).....Capt., A.U.S.
 Fellows, J. G., Ames (APO 451, New York, N. Y.).....Major, A.U.S.
 Lekwa, A. H., Story City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.

McFarland, G. E., Jr., Ames (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 McFarland, J. E., Ames (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Rosebrook, L. E., Ames (APO 433, New York N. Y.) Major, A.U.S.
 Sperow, W. B., Nevada, (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Thorburn, O. L., Ames (Clovis, N. Mex.) Major, A.U.S.
 Wall, David, Ames (APO 448, New York, N. Y.) 1st Lt., A.U.S.

Tama County

Bezman, H. S., Traer (APO 9875, New York, N. Y.) Capt., A.U.S.
 Boller, G. C., Traer (Ft. Riley, Kansas) Capt., A.U.S.
 Dobias, S. G., Chelsea (APO 86, San Francisco, Cal.) Capt., A.U.S.
 Havlik, A. J., Tama (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Schaeferle, L. G., Gladbrook (APO New York, N. Y.) Capt., A.U.S.
 Standefer, J. M., Tama (Des Moines, Iowa) Lt., U.S.N.R.

Taylor County

Hardin, J. F., Bedford (APO 952, San Francisco, Cal.) 1st Lt., A.U.S.

Union County

Beatty, H. G., Creston (New Orleans, La.) 1st Lt., A.U.S.
 Paragas, M. R., Creston (APO 442, San Francisco, Cal.) Capt., A.U.S.
 Ryan, C. J., Creston Capt., A.U.S.

Wapello County

Brentan, Emanuel, Ottumwa (Camp Carson, Colo.) Capt., A.U.S.
 Brody, Sidney, Ottumwa (Monticello, Ark.) Lt. Col., A.U.S.
 Gilfillan, C. D. N., Eldon (Battle Creek, Mich.) Capt., A.U.S.
 Howell, H. P., Ottumwa (Hamilton Field, Cal.) Major, A.U.S.
 Hughes, R. O., Ottumwa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Moore, G. C., Ottumwa (APO 314, New York, N. Y.) Capt., A.U.S.
 Nelson, F. L., Jr., Ottumwa (Springfield, Mo.) Capt., A.U.S.
 Prewitt, L. H., Ottumwa (Louisville, Ky.) Major, A.U.S.
 Selman, R. J., Ottumwa (El Paso, Texas) Col., A.U.S.
 Struble, G. C., Ottumwa (Cleveland, Ohio) Lt. Col., A.U.S.
 Whitehouse, W. N., Ottumwa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Warren County

Fullgrabe, E. A., Indianola (Fleet PO, New York, N. Y.) Lt., U.S.N.R.
 Hoffman, G. R., Lacona (Camp San Louis Obispo, Cal.) Capt., A.U.S.
 Shaw, E. E., Indianola (APO 832, New Orleans, La.) Capt., A.U.S.
 Trueblood, C. A., Indianola (APO 350, New York, N. Y.) Capt., A.U.S.

Washington County

Boice, C. L., Washington (Fleet PO, San Francisco, Cal.) Lt., U.S.N.
 Droz, A. K., Washington (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Mast, T. M., Washington (Great Lakes, Illinois) Lt. Comdr., U.S.N.R.
 Miller, J. R., Wellman (APO New York, N. Y.) 1st Lt., A.U.S.
 Stutzman, R. E., Washington (Patuxent River, Md.) Lt., U.S.N.R.
 Ware, S. C., Kalona (APO 218, New York, N. Y.) Capt., A.U.S.

Wayne County

Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.) Capt., A.U.S.

Webster County

Baker, C. J., Fort Dodge (APO New York, N. Y.) Major, A.U.S.
 Burch, E. S., Dayton (Palm Springs, Cal.) Capt., A.U.S.
 Burleson, M. W., Fort Dodge (Pasadena, Cal.) Capt., A.U.S.
 Coughlan, C. H., Fort Dodge (Camp Carson, Colo.) Major, A.U.S.
 Dawson, E. B., Fort Dodge (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Glesne, O. N., Ft. Dodge (New River, N. C.) Lt. Comdr., U.S.N.R.
 Joyner, N. M., Fort Dodge (Minneapolis, Minn.) A.U.S.
 Kluever, H. C., Fort Dodge (St. Louis, Mo.) Lt. Comdr., U.S.N.R.
 Larsen, H. T., Fort Dodge (Pensacola, Fla.) Lt., U.S.N.R.
 Shrader, J. C., Fort Dodge (APO 758, New York, N. Y.) Lt. Col., A.U.S.
 †Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.) Capt., A.U.S.
 Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.) Capt., A.U.S.
 Van Patten, E. M., Ft. Dodge (Colorado Springs, Colo.) Capt., A.U.S.

Winneshiek County

Fritchen, A. F., Decorah (Mare Island, Cal.) Comdr., U.S.N.R.
 Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.) Lt. Col., A.U.S.
 Larson, L. E., Decorah (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Svendsen, R. N., Decorah (San Diego, Cal.) Lt. (jg), U.S.N.R.
 Van Besien, G. J., Decorah (Springfield, Mo.) Capt., A.U.S.

Woodbury County

Bettler, P. L., Sioux City (APO 235, San Francisco, Cal.) Lt. Col., A.U.S.
 Blackstone, M. A., Sioux City (San Francisco, Cal.) Capt., A.U.S.

Boe, Henry, Sioux City (Fort Snelling, Minn.) Capt., A.U.S.
 Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 †Cmeyla, P. M., Sioux City (P.O.W., c/o Japanese Red Cross, Tokyo, Japan) Capt., A.U.S.
 Cowan, J. A., Sioux City (Oklahoma City, Okla.) Major, U.S.P.H.S.
 Crowder, R. E., Sioux City (Kansas City, Mo.) Lt. Comdr., U.S.N.R.
 Dimsdale, L. J., Sioux City (Clinton, Iowa) Capt., A.U.S.
 Down, H. I., Sioux City (APO 758, New York, N. Y.) Lt. Col., A.U.S.
 Elson, V. J., Danbury (APO 9875, New York, N. Y.) Capt., A.U.S.
 Frank, L. J., Sioux City (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Graham, J. W., Sioux City (Pensacola, Fla.) Lt. Comdr., U.S.N.R.
 Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.) Capt., A.U.S.
 Harris, D. M., Sioux City (APO 444, New York, N. Y.) Capt., A.U.S.
 Heffernan, C. E., Sioux City (APO 17682, San Francisco, Cal.) Capt., A.U.S.
 Hicks, W. K., Sioux City (Spokane, Wash.) Major, A.U.S.
 Honke, E. M., Sioux City (Palm Springs, Cal.) Major, A.U.S.
 Kaplan, David, Sioux City (APO 36, New York, N. Y.) Capt., A.U.S.
 Knott, P. D., Sioux City (Camp Crowder, Mo.) Capt., A.U.S.
 Knott, R. C., Sioux City (APO 403, New York, N. Y.) Major, A.U.S.
 Krigsten, W. M., Sioux City (Springfield, Mo.) Lt. Col., A.U.S.
 Lande, J. N., Sioux City (APO 63, New York, N. Y.) Major, A.U.S.
 Martin, R. F., Sioux City (APO 403, New York, N. Y.) Capt., A.U.S.
 Mattice, L. H., Danbury (APO 713, San Francisco, Cal.) 1st Lt., A.U.S.
 McCuiston, H. M., Sioux City (APO 209, New York, N. Y.) Major, A.U.S.
 Mugan, R. C., Sioux City (Miami Beach, Fla.) Capt., A.U.S.
 Osincup, P. W., Sioux City (APO 520, New York, N. Y.) Capt., A.U.S.
 Rarick, I. H., Sioux City (Camp Pinedale, Cal.) Capt., A.U.S.
 Reeder, J. E., Jr., Sioux City (APO 209, New York, N. Y.) Major, A.U.S.
 Ryan, M. J., Sioux City (Topeka, Kan.) Major, A.U.S.
 Schwartz, J. W., Sioux City (APO 883, New York, N. Y.) Lt. Col., A.U.S.
 Tracy, J. S., Sioux City (Camp Polk, La.) Major, A.U.S.

Worth County

Westly, G. S., Manly (APO 927, San Francisco, Cal.) Major, A.U.S.

Wright County

Aagesen, C. A., Dows (APO 383, New York, N. Y.) Capt., A.U.S.
 Bird, R. G., Clarion (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Doles, E. A., Clarion (Spokane, Wash.) Capt., A.U.S.
 Gorrell, R. L., Clarion (Denver, Colo.) P.A. Surg., U.S.P.H.S.
 Leinbach, S. P., Belmond (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.) Capt., A.U.S.

(*) Reported missing in action.
 (†) Reported deceased in service.
 (‡) Reported prisoner of war.

PREVALENCE OF DISEASE

Disease	June '45	May '45	June '44	Most Cases Reported From
Diphtheria	12	9	9	Clinton, Washington
Scarlet Fever	94	171	243	Polk, Boone, Woodbury
Typhoid Fever	0	0	4	Buena Vista, Taylor
Smallpox	2	0	0	Polk, Woodbury, Story
Measles	206	303	410	Des Moines, Lee
Whooping Cough	2	18	38	Allamakee, Chickasaw, Clinton
Brucellosis	8	10	36	Dubuque, Lee, Black Hawk
Chickenpox	89	275	92	Dubuque, Story
German Measles	2	6	8	Dubuque, Story
Influenza	0	0	0	Clinton, Page, Woodbury
Malaria	*57	181	116	
Meningococcus				
Meningitis	9	7	2	Black Hawk, Dubuque
Mumps	258	505	270	Dubuque, Black Hawk, Woodbury
Pneumonia	**514	10	18	Clinton, Scott, Linn
Poliomyelitis	2	1	0	Clay
Tuberculosis	80	83	90	For the State
Gonorrhea	218	250	177	For the State
Syphilis	113	104	150	For the State

*All infections incurred outside the United States.

**508 of the 514 cases are delayed reports from Iowa hospitals covering first 26 weeks, 1945.

WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

President—MRS. SOREN S. WESTLY, Manly

President-Elect—MRS. ARTHUR E. MERKEL, Des Moines

Secretary—MRS. KEITH M. CHAPLER, Dexter

Treasurer—MRS. HARRY W. DAHL, Des Moines

ANNUAL REPORT OF LEGISLATIVE COMMITTEE

The members of the Legislative Committee were unable to hold a meeting after appointment on account of war conditions, but health programs have been encouraged wherever possible. I have helped arrange three health meetings and have made three talks on the status of medical legislation in the state and national legislatures.

The committee prepared and sent out two Legislative Bulletins.

Mrs. J. A. Downing, Chairman

ANNUAL REPORT OF PRESS AND PUBLICITY 1944-1945

For the third year we have conducted the "Woman's Auxiliary News" in the JOURNAL of the Iowa State Medical Society. We have frequently used excerpts and quotations from articles in *Hygeia* and *The Bulletin* in the hope of stimulating interest and circulation of each. A complete file of "Woman's Auxiliary News" has been mailed to Miss Margaret Wolfe, Editor of *The Bulletin*.

Eighty letters have been written in the interest of the "Woman's Auxiliary News". Fifteen of these were to county presidents urging regular Auxiliary reports.

Six sets of the panel questions on the Wagner Act, composed by your chairman, were mailed to Auxiliary members on request.

Mrs. K. M. Chapler, Chairman

ANNUAL REPORT OF THE HYGIEIA COMMITTEE

During the past year ten letters were written, five to the state president and five to the national *Hygeia* chairman; twenty double postcards were mailed, fifteen of which went to county presidents and five to county *Hygeia* chairmen.

The following report on *Hygeia* chairmen was compiled from information furnished by county presidents: 1 county, no active work; 4 counties, inactive; 1 county, no *Hygeia* chairman; 3 counties, active *Hygeia* chairmen; and 5 counties, no answer. The results of the three counties with active chairmen were: Dallas-Guthrie, 31 subscriptions; Dubuque, 25; and Polk, 55. Thus, the total number of subscriptions placed was 111.

Mrs. P. W. Beckman, Chairman

ANNUAL REPORT OF WAR SERVICE COMMITTEE

The chairman sent to each organized group a reprint of the *Bulletin* War Service activities furnished by the National Organization. Questionnaires on service activities were sent to fifteen organized groups; ten counties responded and considerable correspondence has taken place in an effort to assist in these reports.

1. Adair: 4,582 hours (2 active members; 4 paid members, doctors' assistants).
2. Calhoun: 3 paid members, doctors' assistants.
3. Dallas-Guthrie: 524 hours (Hospital service and bond selling; \$5.00 to Nurses Loan Fund).
4. Dubuque: 6,743 hours; Hospital project.
5. Greene: No project (Inactive members; members leaders in war service of American Legion, O. E. S., etc).
6. Montgomery: Hospital project; sewing and emergency nursing.
7. Polk: Unit project. Monthly hospital sewing; USO hostesses and furnished food; Surgical dressing unit; \$25.00 to Red Cross; \$15.00 to Nurses Loan Fund.
8. Pottawattamie: 500 hours of hospital sewing, 2 members being responsible for all but 100 of these hours; \$5.00 to kit furnishings.
9. Woodbury: 51 members participated in 15 services. The Auxiliary sponsored the purchase of kitchen furnishings for Lanham Nursery.
10. Worth: 1,605 hours in surgical dressings, sewing, knitting, cancer control; 4 members responsible.

This report in no way represents the active services rendered by Auxiliary members, but it is a record of Unit projects not listed through other organizations.

Mrs. M. C. Hennessy, Chairman

ANNUAL REPORTS OF COUNTY AUXILIARIES

DUBUQUE COUNTY

The Auxiliary to the Dubuque County Medical Society held three meetings during the past year under the direction of Mrs. Henry M. Pahlas as president, Mrs. John C. Pickard, vice president, Mrs. Frederick Fuerste, secretary-treasurer, and Mrs. William A. Henneger, historian. Activities of the members as reported at these meetings included a

total contribution of 2,292 hours of work at surgical dressing rooms; 643 hours of this time were spent in Red Cross sewing, another 113 hours of sewing being finished for Finley Hospital and 742 hours for Mercy Hospital. *Hygeia* subscriptions obtained by the Auxiliary numbered 22, among which were gift subscriptions for the local Boys' Club and Public Library reading rooms. At the request of the Dubuque U.S.O. the society also made two donations of cookies for the service center.

Keynote of the year was that given by Mrs. W. S. Reiley of Red Oak, who paid the chapter an official visit and urged that the group "maintain its organization, keep up interest in war work and learn the pledge of the American Medical Auxiliary."

Mrs. W. A. Henneger, Historian

WOODBURY COUNTY

The Sioux Med-Dames, or Auxiliary to Woodbury County Medical Society, has closed another pleasant and successful year—pleasant because of the friendly spirit of good will among its members, and successful because of the cooperation and harmony between the officers and various committees. In spite of the fact that we are all under a tremendous strain, each member has put forth every effort to maintain the splendid spirit and morale which has always characterized our organization. Then, too, we have been most fortunate to have had our state president right here with us, not only to help keep up our spirit, but to offer any advice when it was deemed necessary. We are indeed grateful to Mrs. Decker.

We have had four meetings during the year. The June meeting was a luncheon at one of the hotels, and at that time we voted to make the Lanham Nursery one of our additional war projects. A committee was appointed to do the purchasing of kitchen articles necessary to furnish one of these nurseries. Since some of these articles were difficult to find, many of the members donated utensils from their own kitchens. During the meeting the members sewed tapes on towels, wash cloths, and bibs for the nursery children.

Our September meeting was indeed a delightful one. It was a tea given at the home of one of our members in honor of our state president, Mrs. Jay C. Decker, and our state secretary, Mrs. A. C. Starry. To have two state officers in our club in the same year is a rare occasion. We had a large attendance and a pleasant time was had by all.

The Christmas luncheon was held at the Warrior Hotel. The Christmas spirit was made evident through songs rendered by the Grey Ladies chorus, and vocal solos by one of our members, Mrs. Wayland K. Hicks. Mrs. Decker stressed the purchase of *Hygeia*, *The Health Magazine*.

The fourth and final meeting, March 1945, was a tea at the home of one of our members. Aside from the program, each member was checked for her war service contribution. This survey showed that all of our members were participating in some

sort of war activity such as Red Cross, Nurses Aide, Canteen work, U.S.O., and many others.

This year, as in previous years, we have donated \$5.00 to the Nurses Loan Fund and \$5.00 to the Red Cross.

It has been a pleasure to serve as president of the Sioux Med-Dames this past year.

Mrs. Roy E. Crowder, President

CHAIRMEN OF STATE COMMITTEES

1945-1946

Organization—Mrs. A. E. Merkel, Des Moines.
 Program—Mrs. Fred Moore, Des Moines.
 Legislation—Mrs. J. A. Downing, Des Moines.
 Press and Publicity—Mrs. K. M. Chapler, Dexter.
 Revisions—Mrs. C. G. Smith, Granger.
 Finance—Mrs. E. T. Warren, Stuart.
 Historian—Mrs. W. A. Seidler, Jamaica.
 Hygeia—Mrs. R. E. Gunn, Boone.
 Public Relations—Mrs. D. J. Glomset, Des Moines.
 Bulletin—Mrs. J. B. Knipe, Armstrong.
 Nurses Loan Fund—Mrs. W. R. Hornaday.
 Defense—Mrs. G. S. Westly, Manly.
 Parliamentary—Mrs. E. A. Hanske, Bellevue.
 War Service—Mrs. M. C. Hennessy, Council Bluffs.

CANCER DRIVE IN WOODBURY COUNTY

The Sioux Med-Dames, under the leadership of Mrs. L. E. Pierson who was assisted by city chairman Mrs. J. M. Schwartz, conducted a successful "Cancer Drive" during which \$2,294.94 was collected by the Sioux City women and \$68.85 was donated by the small towns of the surrounding territory. The total amount collected was \$2,363.79.

Mrs. J. D. Lutton, Secretary

SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 2:45 p. m.

WSUI—Thursdays at 3:00 p. m.

Aug. 1-2 Care of the Teeth
 Walter J. Baumgartner, D.D.S.
 Aug. 8-9 Conserve Your Doctor's Health
 Robert N. Larimer, M.D.
 Aug. 15-16 Preparing Your Child for School
 Jonathan H. Murray, M.D.
 Aug. 22-23 Malaria and Other Tropical Diseases
 Harry G. Marinos, M.D.
 Aug. 29-30 The Common Cold
 Ira N. Crow, M.D.

WIVES OF PHYSICIANS IN SERVICE—

Please drop a card to the State Office whenever your husband has a change of address so that he may receive his Journal regularly wherever he may be.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. WALTER L. BIERRING, Des Moines, Chairman

DR. HENRY G. LANGWORTHY, Dubuque, *Secretary* DR. CHARLES L. JONES, Gilmore City

DR. CLYDE A. HENRY, Farson

DR. LESTER C. KERN, Waverly

Medical History of Wapello County

CLYDE A. HENRY, M.D., Farson

Part IV

A COMPENDIUM OF WAPELLO COUNTY MEDICAL HISTORY FROM 1853 TO 1945

(Continued from last month)

EARLY PIONEER DOCTORS WHOSE PICTURES WERE UNOBTAINABLE

Dr. A. C. Olney was born in Morgan County, Ohio, October 13, 1817, the son of Oman and Tryphena (Cheadle) Olney. His father was a native of Marietta, Ohio, and his mother was born in Windsor County, Vermont. They moved from Ohio to McLean County, Illinois, in 1830 and remained there until 1846 when they came to Wapello County, where they later died at the respective ages of seventy-five and sixty-nine years. Young Olney received his early education in the common schools of Ohio. He entered Knox College at Galesburg, Illinois, from which he was graduated with the first class in June, 1846. He came to Henry County, Iowa, and taught school during the winter of 1846-47. He then moved to Glasgow, Jefferson County, Iowa, and began the study of medicine in the office of Dr. W. W. Cottle. About four years later he came to Wapello County, engaging in the practice of medicine at Chillicothe. He spent the winter of 1852-53 at the College of Physicians and Surgeons, Keokuk, Iowa, from which he received the degree of Doctor of Medicine. He returned to Chillicothe and resumed his practice, continuing there for the following twenty-five years. On January 1, 1878, he moved to Ottumwa and there practiced medicine until June, 1881, at which time he moved to Eddyville, where he remained in practice for a number of years.

Dr. Olney played an important rôle in civic as well as medical affairs in the pioneer days of Wapello County. He became a member of the Wapello County Medical Society, in 1853, and assisted in its reorganization in 1870. He was also one of the founders of the Des Moines Valley Medical

Association, and a member of the State Society. He was county physician and coroner of Wapello County for a period of four years; and, at one time, filled the office of County Superintendent of Schools.

Dr. Olney was twice married—first, to Miss Eliza Ann Saunders, a native of Wood County, Vermont, where she was born September 30, 1817. She died in Chillicothe February 4, 1870. There were six children by this marriage. On October 23, 1870, he married Miss Frances A. Daines, a native of Carroll County, Illinois.

Dr. A. C. Olney died at the home of his son-in-law, Dr. L. Campbell, in Chillicothe, Iowa, June 22, 1889.

Dr. E. L. Lathrop was born September 19, 1844, in Madison County, New York. He was the son of the Reverend Samuel G. and Cynthia (Clary) Lathrop.

When he was thirteen years old he moved with his parents to Chicago, Illinois, where he received his early education. He then spent two years at Rock River Seminary. At the age of sixteen he began reading medicine under Dr. W. W. Winn of Dixon, Illinois. In 1862 he returned to Chicago to continue his medical studies under Dr. N. S. Davis, during which time he attended two courses of lectures at the Rush Medical College. He was refused a diploma, however, because of his age. But the Civil War was in progress, and he enlisted as a soldier in the 12th Illinois Cavalry on October 8, 1864. One month later he applied for and obtained an honorable discharge from this regiment in order to accept a commission as Assistant Surgeon of the 10th Illinois Cavalry, with which regiment he served until the close of the war. He was just past twenty years old at

that time and was the youngest Assistant Surgeon west of the Mississippi river. After his discharge from the army he practiced medicine for a short time at Joliet, and then returned to Chicago to complete his medical education. After receiving his M.D. degree from the Rush Medical College in 1868, he practiced medicine in Chicago until 1871. During that year he came to Ottumwa to engage in the practice of medicine and surgery. His genial disposition soon won him a large circle of friends.

Dr. Lathrop married Miss Emma Hedrick, daughter of John W. Hedrick of Dahlonga Township, in 1873. They had one child, Edward H.

He was a member of the county, state, and national medical associations, and for many years was prominently connected with the Des Moines Valley Medical Association. He served as county coroner for several years, and collected perhaps the largest private museum in the state. Before coming to Ottumwa, he organized the Museum of Comparative Anatomy at Rush Medical College in 1868. In 1877 he was commissioned Surgeon of the Fifth National Guard of Iowa.

Dr. Lathrop established a large and substantial practice; and some of the older members of the Wapello County Medical Society still remember him for the unique surgical dressing he prepared from baked clay and used successfully in his surgical practice. He died May 10, 1891.

Dr. James W. LaForce was born in Woodford County, Kentucky, in 1826. His parents were Daniel G. and Nancy (Stodgehill) LaForce, both native Kentuckians. The family moved from their native state to Iowa in 1841. They spent the winter in Van Buren County, moving to Washington Township, Wapello County, in April, 1842. His father engaged in farming and young James remained at home, helping with the farm work in the summertime and attending the common schools of the vicinity until he was twenty-two years of age, when he taught school for a time. During this period he read medicine. In 1850 he made an overland trip to California in search of gold, but the gold fever soon died out and he returned after one year to resume the study of medicine. He was soon engaged in practicing as well as reading medicine, and in May, 1853, became one of the founders of the Wapello County Medical Society. He attended the College of Physicians and Surgeons at Keokuk, Iowa, receiving his medical degree with the class of 1856. He immediately returned to Old Ashland to resume his practice. In the fall of 1862 he enlisted as a private in Company C, 77th Iowa Volunteer Cavalry. The following year he was appointed Assistant Surgeon of his regiment, with

which he served continuously until December, 1864, when he was given an honorable discharge on account of failing eyesight.

As soon after his return home as he was physically able, he resumed civilian practice in Floris, Iowa, but soon moved to Eldon, the new railroad station near Old Ashland. Here he successfully engaged in the practice of medicine and also became the owner and manager of a 1,700-acre stock farm.

Dr. James W. LaForce was an elder half brother of Dr. D. A. LaForce, the difference in their ages being about thirteen years.

Dr. James W. LaForce was twice married. In 1849 he married Miss Margaret Ann Morgan of Davis County, who died in 1853. They had two children, both of whom died in infancy. His second marriage was with Miss Mary Jane Black of Lee County, Iowa. They were married August 2, 1865, and had four children, one of whom died in childhood.

Dr. Lewis J. Baker was born near Waynesburg, Greene County, Pennsylvania, May 13, 1850, the son of George and Charity (Sharpe) Baker. Lewis J. Baker was reared on a farm, receiving his early education in the rural schools, the Academy at Carmichael's, and a select school in Beallsville, Pennsylvania. After completing his premedical education, he taught school for a time. In 1871 he began reading medicine, and in 1875 received his M.D. degree from Jefferson Medical College, Philadelphia. Soon after graduation he located at Bellaire, Ohio. In 1878 he moved to Pittsburgh, Pennsylvania, where, in addition to his practice, he engaged in a manufacturing enterprise until 1882. That year he came to Ottumwa on a visit and was so well pleased with the opportunities presented for success in his profession that he immediately closed his office in Pittsburgh and located in Ottumwa. He possessed both skill and tact and attained the high rank of a successful practitioner. He was a member of the Wapello County Medical Society, serving as its president two terms, and was an active member of the Des Moines Valley Medical Association and the South-eastern Iowa Medical Association. He was also a member of the Western Surgical and Gynecological Association.

Dr. Baker was united in marriage with Miss Emma D. Shugert in 1876. They had one child, a daughter.

In 1911, when his health was failing rapidly, he moved to Kalispell, Montana, hoping to recuperate. He lived only a few months, however. His death occurred on November 12, 1911.

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

PENICILLIN AND OTHER ANTIBIOTIC AGENTS—By Wallace E. Herrell, M.D., Assistant Professor of Medicine, the Mayo Foundation, University of Minnesota; Consultant in Medicine, Mayo Clinic, Rochester, Minnesota. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

APPROVED LABORATORY TECHNIC—By John A. Kolmer, M.D., Professor of Medicine in the School of Medicine and the School of Dentistry, Temple University, Director of the Research Institute of Cutaneous Medicine; and FRED BOERNER, V.M.D., Associate Professor of Clinical Bacteriology, Graduate School of Medicine, and Assistant Professor of Bacteriology, School of Medicine, University of Pennsylvania, Bacteriologist, Graduate Hospital, Philadelphia. Fourth edition. D. Appleton-Century Company, Inc., New York, 1945. Price, \$10.00.

PHYSICAL DIAGNOSIS—By Ralph H. Major, M.D., Professor of Medicine, The University of Kansas, Kansas City, Kansas. Third edition, revised. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

MALARIA IN THE UPPER MISSISSIPPI VALLEY, 1760-1900—By Erwin H. Ackerknecht. Supplements to the Bulletin of the History of Medicine, No. 4. The Johns Hopkins Press, Baltimore, 1945. Price, \$2.00.

THE 1944 YEAR BOOK OF INDUSTRIAL AND ORTHOPEDIC SURGERY—Edited by Charles F. Painter, M.D., Orthopedic Surgeon to the Massachusetts Women's Hospital and Beth Israel Hospital, Boston. The Year Book Publishers, Chicago, 1945. Price, \$3.00.

MEN UNDER STRESS—By Roy R. Grinker, Lt. Col., M. C., and John P. Spiegel, Major, M. C., Army Air Forces. The Blakiston Company, Philadelphia, 1945. Price, \$5.00.

CLINICAL TRAUMATIC SURGERY—By John J. Moorhead, M. D., Formerly Professor of Clinical Surgery, New York Post-Graduate Medical School, Columbia University, and executive Officer, Department of Traumatic Surgery, Post-Graduate Hospital and Reconstruction Hospital Unit; Colonel, M. C., A. U. S., Inac. Res. W. B. Saunders Company, Philadelphia, 1945. Price, \$10.00.

PENICILLIN THERAPY, Including Tyrothricin and Other Antibiotic Therapy—By John A. Kolmer, M.D., Professor of Medicine in the School of Medicine and the School of Dentistry, Temple University; Director of the Research Institute of Cutaneous Medicine; Formerly Professor of Pathology and Bacteriology, Graduate School of Medicine, University of Pennsylvania. D. Appleton-Century Company, New York, 1945. Price, \$5.00.

BOOK REVIEWS

DOCTORS AT WAR

Edited by Morris Fishbein, M.D., Editor of the *Journal of the American Medical Association* and of *Hygeia*, *The Health Magazine*; Chief Editor of *War Medicine*; Chairman of the Committee on Information of the Division of Medical Sciences of the National Research Council. E. P. Dutton & Company, Inc., New York, 1945. Price, \$5.00.

This volume consists of contributions from sixteen different leaders in various fields of war medicine, including the Surgeon General of the Army and the Surgeon General of the Navy. It presents an over-all picture of the expansion, the organization, the operation, and the effectiveness of the medical department.

The magnitude of the problem of expansion and organization and the detailed planning involved are most effectively presented. The magnificent and inspirational story of the American Doctor in action is dramatically told. The part played by medical research and the activities of the American Red Cross are related in some detail.

This is an excellent book which should appeal to physician and layman alike, but should have a particular appeal for the doctor who has been in military service.

D. H. K.

DIETOTHERAPY

Clinical Application of Modern Nutrition

Edited by Michael G. Wohl, M.D., Associate Professor of Medicine, Temple University School of Medicine; Chairman, Advisory Committee on Nutrition, Philadelphia Department of Public Health. With a fore-

word by Russell M. Wilder, M.D., Professor of Medicine and Chief of the Department of Medicine, Mayo Foundation; Member of the Committee on Medicine and Subcommittee on Medical Nutrition, Medical Sciences Division, National Research Council. W. B. Saunders Company, Philadelphia, 1945. Price, \$10.00.

This volume, a compilation of over fifty different authors, is designed to offer the practicing physician a knowledge of both the current advances in and practical application of the science of nutrition. The book is divided into three main sections: Normal Nutrition, Nutrition in Periods of Physiological Stress, and Nutrition in Disease.

The section on nutrition in disease will be especially helpful to the physician since definite dietary regimes are given for each condition. Source material mentioned in the text is given in a complete bibliography at the end of each chapter. C. F.

CONSTITUTION AND DISEASE

Applied Constitutional Pathology

By Julius Bauer, M.D., Professor of Clinical Medicine, College of Medical Evangelists, Los Angeles; Senior Attending Physician, Los Angeles County General Hospital; Consultant in Medicine, Cedars of Lebanon Hospital, Los Angeles; formerly Professor of Medicine, University of Vienna. Second edition, revised and enlarged. Grune & Stratton, New York, 1945. Price, \$4.00.

This is a well-written book worth any doctor's time to read, since it gives a different approach to the patient. Dr. Bauer explains how to consider

the whole personality, both mental and physical, rather than one or several organs at a time. He states that the potential energy in the germ plasma does not stop after nine months but continues throughout the life of the individual. It is this potential energy that Dr. Bauer calls Individual Constitution. He traces this potential energy through the different organs, such as eyes, ears, thyroid, heart, and digestive tract, pointing out many times why the diagnosis is frequently missed and then showing how it can be made correctly. The difference between normal and abnormal is clearly discussed in the introduction. C. A. N.

find it exceedingly useful in a busy obstetric practice. Its index and contents render the material very accessible. W. E. B.

CLINICAL ROENTGENOLOGY OF THE DIGESTIVE TRACT

By Maurice Feldman, M.D., Assistant Professor of Gastroenterology, University of Maryland; Assistant in Gastroenterology, Mercy Hospital; Consulting Roentgenologist, Sinai Hospital. Second edition. The Williams and Wilkins Company, Baltimore, 1945. Price, \$7.00.

This is a complete and authentic textbook. The author has been unusually thorough in his presentation of the clinical and roentgenologic findings of all the diseases of the digestive tract. The text is terse and lucid, the illustrations clear and pertinent.

We cannot recommend this volume too highly to anyone seriously interested in a study of the digestive tract. H. W. D.

THE MANAGEMENT OF OBSTETRIC DIFFICULTIES

By Paul Titus, M.D., Obstetrician and Gynecologist to the St. Margaret Memorial Hospital, Pittsburgh; Consulting Obstetrician and Gynecologist to the Pittsburgh City Homes and Hospital, Mayview, and to the Homestead Hospital, Homestead, Pa.; Secretary of the American Board of Obstetrics and Gynecology; Commander (MC) USNR, attached to Professional Division, Bureau of Medicine and Surgery, Navy Department, Washington, D. C. Third edition. The C. V. Mosby Company, St. Louis, 1945. Price, \$10.00.

Dr. Titus has had long experience in obstetrics and gynecology, and is secretary of the American Board of his specialty. He published his first edition in 1937 and the present volume is the third edition of this work. It is written from the standpoint of the technical and clinical management of the problems as they occur in the practice of obstetrics. The treatise includes both the medical complications of obstetrics and the surgical management of obstetric abnormalities.

This volume, like the predecessors, will undoubtedly receive wide acceptance and be very popular. Some of the newer material has been rather sketchily considered and the revision is not extensive. If one does not already have a copy of this book, he will

TRAUMA IN INTERNAL DISEASES

By Rudolf A. Stern, M.D., Assistant Attending Physician, City Hospital, New York City. Foreword by Francis Carter Wood, M.D., Director of Laboratories Radiotherapy Department, St. Luke's Hospital, New York. Grune & Stratton, New York, 1945. Price, \$6.75.

This volume is devoted to a presentation of the rôle of trauma in the cause of internal disease. It is written from the medicolegal point of view and is a critical analysis of the scientific literature pertinent to the subject. It presents a vast amount of clinical material which covers the field of internal medicine in relation to nonpenetrating trauma.

This book will be a valuable addition to the library of the physician who is interested in medicolegal work. D. H. K.

ATLAS OF THE BLOOD IN CHILDREN

By Kenneth D. Blackfan, M.D., Late Thomas Morgan Rotch Professor of Pediatrics, Harvard Medical School, Late Physician-in-Chief, Infants' and Children's Hospitals, Boston; LOUIS K. DIAMOND, M.D., Assistant Professor of Pediatrics, Harvard Medical School, Visiting Physician and Hematologist, Infants' and Children's Hospitals, Boston; with illustrations by C. MERRILL LEISTER, M.D., Associate Pediatrician, St. Luke's Hospital, Bethlehem, and Allentown General Hospital, Allentown, Pennsylvania. The Commonwealth Fund, New York, 1944. Price, \$12.00.

There are at least three things of major importance in the review of a book. First, who are the authors and what are their qualifications to present the subject material? Second, what is the book about and how good a job do the authors do? Third, what special means have the authors used to make the book as valuable as possible to the reader?

Kenneth Blackfan was Professor of Pediatrics at Harvard Medical School until his death in 1941. He was recognized throughout the pediatric world as one of the ablest and keenest pediatricians of all time. His contributions to pediatric knowledge and advancement have been enormous. Dr. Diamond is an Associate Professor of Pediatrics at Harvard and is a nationally known hematologist. Dr. Leister is also a well known pediatrician, but in addition is an artist of exceptional ability. These three outstanding physicians have united their several abilities to present a book, "Atlas of the Blood in Children," which is so remarkable that it is impossible to do it justice in a short review. Its basis is 5,000 cases of blood diseases seen in children at the Children's Hospital by Drs. Blackfan and Diamond between the years of 1927 and 1941. Stained blood films from

among these cases have been accurately reproduced by Dr. Leister in seventy colored plates. Opposite each colored plate is a schematic black and white drawing with an appended description which makes it easy to recognize each type of abnormal blood cell.

The first chapter deals with the origin of the blood cells. Subsequent chapters discuss the red and white cells in disease, leukemia, and the platelets. A bibliography is appended for the convenience of those who wish to do further reading. The subject matter is presented with that clearness and definiteness for which Dr. Blackfan was noted, and which characterized all his writings. Interspersed are numerous illustrative case records which add much to reader interest and information.

The seventy colored plates mentioned are the special method the authors have employed to augment and clarify the written portion. Practically all abnormal cells which occur in blood diseases of both children and adults are to be found in the colored plates. This reviewer can only repeat that this is a most remarkable book—one which any physician who looks down the barrel of a microscope at a blood smear will find of inestimable aid in arriving at a correct diagnosis and understanding of his patient's disease.

L. F. H.

MALARIA IN THE UPPER MISSISSIPPI VALLEY, 1760-1900

By Erwin H. Ackerknecht, M.D., Supplements to the Bulletin of the History of Medicine, No. 4. The Johns Hopkins Press, Baltimore, 1945. Price, \$2.00.

In the Introduction, the author quotes Stitt and Strong in the statement that "from the standpoint of prevalence malaria appears to be the most important disease in the world today." With the estimated annual occurrence in the world of 300 million cases, this means "that one-sixth of the earth's population is suffering from malaria." The Upper Mississippi Valley was chosen for special study because of the widespread prevalence of malaria in Illinois, Iowa, Missouri, Minnesota and Wisconsin from the time the white settlers first located in this area until 1870, and because the disease practically disappeared without systematic effort at control measures.

In a chapter entitled The Rise and Fall of Malaria in the Upper Mississippi Valley, special consideration is given to the prevalence of malaria in the above mentioned midwestern states. Beginning with the French and American explorers Joliet and Marquette, and Lewis and Clark, there are interesting quotations from Plummer's "Sketches of Iowa and Wisconsin" printed in 1839; from Prof. W. J. Petersen's book entitled "Doctors" (1938); from an article by Dr. J. F. Henry in the Western Medico-Chirurgical Journal (1851), and from the first two Biennial Reports (1881 and 1883) of the Iowa State Board (now Department) of Health.

Another chapter bears the title, Possible Fac-

tors for the Disappearance of Malaria from the Upper Mississippi Valley. The study concludes with an interesting three-page chapter, Some Remarks on Malaria and History, with an alphabetically arranged list of 235 books and articles to which reference is made or from which quotations are selected.

This volume, containing also some well prepared diagrams and maps of the northern midwestern states, represents a significant and lasting contribution to knowledge of malaria and of the early history of Iowa and other states adjoining the Upper Mississippi River.

C. F. J.

THE EXAMINATION OF REFLEXES A Simplification

By Robert Wartenberg, M.D. Foreword by Foster Kennedy, M.D. The Year Book Publishers, Inc., Chicago, 1945. Price, \$2.50.

I personally have been anxious to clarify and improve my knowledge of reflexes; therefore, it was with keen anticipation that I read this book devoted to reflexes. After reading, my added knowledge is exactly zero. The entire book is written as an argument, reassigning names to various bodily reflexes, disclaiming a multitude of personal names given by doctors through the centuries to identical reflexes. There is undubtably much information in the volume, yet is so entangled into the multitudinous argument about whose name should or should not be applied to each reflex that all value of the book is completely lost. There is no classification, no summation, no orderly arrangement of fact. In truth, it is difficult to isolate facts, and if one fact is found it clarifies nothing.

F. L. K.

PENICILLIN AND OTHER ANTIBIOTIC AGENTS

By Wallace E. Herrel, M.D., Assistant Professor of Medicine, The Mayo Foundation, University of Minnesota; Consultant in Medicine, Mayo Clinic, Rochester, Minnesota. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

This scientific treatise of some 300 pages is presented in four parts: First, the history, experimental work, preparation, and laboratory procedures; second and third, the clinical use of penicillin; and fourth, other antibiotic agents.

The dramatic story of the discovery of the drug and the problems involved in quantity production are well described. Detailed discussions of the indications, the dosage, the methods of administration and the effectiveness in infections of the various body systems are presented. Colored plates of patients illustrating the effectiveness of the drug are convincing evidence and are valuable additions to the text.

This volume can be accepted as a manual on the use of penicillin. It should be considered an essential part of the physician's armamentarium and should be in every doctor's library.

D. H. K.

SOCIETY PROCEEDINGS

Dallas-Guthrie Society

The Dallas-Guthrie Medical Society and Woman's Auxiliary held their regular monthly meeting at the State Hospital in Woodward Thursday afternoon, July 19. Luncheon was served at 12:30 o'clock at the Haas Cafe, following which the members adjourned to the hospital for their business meeting. The scientific program was devoted to a discussion of Iowa Medical Service by Martin I. Olsen, M.D., of Des Moines, and also the presentation of a few interesting cases by the hospital staff.

S. J. Brown, M.D., Secretary

Davis County

The Davis County Medical Society held a meeting in Bloomfield at the Royal Cafe Friday evening, July 13, honoring Lieutenant Commander George W. Gilfillan of Bloomfield who is home on leave. Following a chicken dinner, Commander Gilfillan told of his experiences in the Pacific. There was an attendance of approximately one hundred persons, including doctors and their wives and guests.

H. C. Young, M.D., Secretary

Louisa County

The Louisa County Medical Society met at Chau-tauqua Park in Columbus Junction Thursday evening, June 14, for a picnic supper honoring Dr. Frank A. Hubbard of Columbus Junction and Dr. Elliott R. King of Letts upon their completion of fifty years in the practice of medicine. Dr. Clyde A. Boice of Washington spoke on the advancement of medicine in the past fifty years and Dr. John H. Chittum of Wapello told the history of the county society, which was started over fifty years ago.

Palo Alto County

Members of the Palo Alto County Medical Society and their wives were guests at a dinner given by the Commercial Club of Mallard Tuesday evening, May 22, in honor of Dr. Edward D. Beatty who had completed fifty years of practice in that city. Dr. R. D. Bernard of Clarion, President of the Iowa State Medical Society, was the principal speaker and talked on the progress of science, art and economics of medicine. He also presented Dr. Beatty with a Fifty Year Club pin. Other physicians present spoke briefly of their association with the honored guest.

P. O. Nelson, M.D., Secretary

Scott County

The annual picnic of the Scott County Medical Society was held at the Shorey Farm near Pleasant

Valley Wednesday afternoon, July 25. Dinner was served at 6:00 p. m.

L. J. Miltner, M.D., Secretary

Wapello County

The Wapello County Medical Society honored Dr. Murdoch Bannister at a surprise dinner Tuesday evening, June 26, at the Ottumwa Country Club in recognition of his completion of fifty years of practicing medicine in the city of Ottumwa. Practically all physicians and surgeons in the county were present, along with their wives and guests. Guests from Des Moines included Dr. Walter L. Bierring, State Health Commissioner, who spoke; Dr. Daniel J. Glomset; and Robert Bannister, attorney and brother of Dr. Bannister. Dr. Harold A. Spilman presented Dr. Bannister with the Fifty Year Club pin of the Iowa State Medical Society, and Dr. Siegmund F. Singer, President of the Wapello County Medical Society, presented a pen and pencil set as a token of the Society's friendship and admiration.

Washington County

The Washington County Medical Society held its regular monthly meeting in Washington Thursday evening, June 28. The guest speaker of the evening was William D. Paul, M.D., of the State University of Iowa College of Medicine. Dr. Paul presented an illustrated lecture on Arthritis, which was greatly appreciated by those in attendance.

W. S. Kyle, M.D., Secretary

Iowa and Illinois Central District Medical Association

Dr. Glen W. Doolen of Davenport was named president of the Iowa and Illinois Central District Medical Association at its annual meeting Thursday evening, May 24, at the Black Hawk Watch Tower in Rock Island, Illinois. Other officers elected were Dr. Joseph K. Hanson of Moline, vice president; Dr. James Dunn of Davenport, secretary; Dr. Florens E. Bollaert of East Moline, treasurer.

PERSONAL MENTION

Lt. Colonel Edward S. Murray, M.C., of Cedar Rapids has been awarded the Typhus Commission Medal because "in Turkey in 1943-44, in Egypt in 1944 and in Yugoslavia in 1945 he performed exceptionally meritorious service in connection with the work of the United States of America Typhus Commission. He had a prominent part in organizing and applying typhus control programs beneficial to those countries, and by scientific investigations he contributed to medical knowledge of typhus

fever. In difficult and dangerous situations he steadfastly adhered to the plans of the Commission and carried out projects on a national scale with energy, intelligence, tact and high professional competence. His performance of duties was characterized by breadth of understanding and capacity to deal successfully with large problems."

Captain Lewis J. Dimsdale, M.C., of Sioux City was recently appointed a diplomate of the American Board of Internal Medicine. At present Captain Dimsdale is stationed at Schick General Hospital in Clinton where he is acting assistant chief of the medical service.

Dr. Helen Johnston of Des Moines has been chosen president-elect for 1946 of the American Medical Women's Association. Dr. Johnston, who attended the Association's convention, was chosen by mail ballot.

Dr. John J. Tilton, who has practiced in Maquoketa for the past four years, has established an office in Bellevue in the building formerly occupied by the late Dr. Edward A. Hanske. Dr. Tilton was requested to locate in Bellevue by the Procurement and Assignment Service in order to relieve the critical situation regarding available medical service in that community.

Dr. James W. Woodbridge of Emmetsburg has announced he is retiring from active practice after fifty-two years of service, more than fifty of which were spent in Palo Alto County.

Dr. Emory D. Warner has been named head of the Department of Pathology at the State University of Iowa College of Medicine to succeed Dr. Harry P. Smith, who accepted a similar position at Columbia University in New York City.

Dr. Forrest J. Austin of Fort Dodge, Medical Director of Iowa Public Health District No. 5 for the past six years, has resigned that position and plans to locate in Omaha, Nebraska. Dr. Melvin T. Johnson of Lake Mills has been appointed to succeed Dr. Austin.

Dr. William J. McGrath of Elkader was the guest of honor at a picnic held Sunday, June 17, at the Elkader fairgrounds. Over eight hundred friends were present to help Dr. McGrath celebrate his fiftieth year of service in that community.

DEATH NOTICES

Ayres, Chester Arthur, of Lorimor, aged sixty-four, died June 29 of heart disease. Dr. Ayres had been ill several months. He was graduated in 1904 from the University of Illinois College of Medicine, and at the time of his death was a member of the Union County and Iowa State Medical Societies.

Brown, James Charles, of Littleport, aged seventy-two, died July 9 after an illness of many weeks. He was graduated in 1911 from the Chicago College of Medicine and Surgery, and at the time of his death was a member of the Clayton County and Iowa State Medical Societies.

Gambec, Eric Julian, of Earling, aged fifty-five, died July 5 of injuries incurred in an automobile accident on June 28. He was graduated in 1917 from Creighton University School of Medicine, and at the time of his death was a member of the Shelby County and Iowa State Medical Societies.

Hanske, Edward Albert, of Bellevue, aged seventy-three, died June 21 of a heart attack. He was graduated in 1901 from Louisville Medical College, Louisville, Kentucky, and at the time of his death was a member of the Jackson County and Iowa State Medical Societies.

McCarthy, Charles Knight, of Webster City, aged fifty, died July 10 of coronary thrombosis. He was graduated in 1930 from Tufts College Medical School in Boston, and at the time of his death was a member of the Hamilton County and Iowa State Medical Societies.

McDannell, John, of Nashua, aged seventy-five, died July 14 of a heart attack suffered five days before. He was graduated in 1891 from the Kentucky School of Medicine, Louisville, and at the time of his death was a member of the Chickasaw County and Iowa States Medical Societies.

Stageman, John Frederick, of Council Bluffs, aged sixty-nine, died June 20 of a stroke suffered ten days before. He was graduated in 1903 from Creighton University School of Medicine, and at the time of his death was a member of the Pottawattamie County and Iowa State Medical Societies.

VITAMIN C WITHOUT VALUE IN THERAPY OF HAY FEVER

(Continued from page 334)

min C-in addition to that contained in the diet; improvement occurred in only three patients—too small a number to be statistically significant.

Furthermore, the average plasma level of vitamin C in 14 ragweed hay fever patients not receiving extra vitamin C was 0.89 per 100 cubic centimeters, which approximates that of normal subjects. Levels in 18 of the treated group averaged 1.28 milligrams per 100 cubic centimeters of blood. This is regarded as approximately the saturation point. Nevertheless, relief was not secured.

This is a timely article and one which physicians may well heed in order to save their patients useless expense.

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MEDICINE AND MEDICAL EDUCATION IN THE POSTWAR ERA

E. M. MACEWEN, M.D., Iowa City

The request of our president for a paper on postwar medical practice and medical education is timely. Since the days of Paré, if not earlier, wars have played significant rôles in medical education and practice. For centuries ambitious young graduates of the European medical schools joined the armies to get practical experience.

John Morgan, who was primarily responsible for the chartering of the first medical school in our country, after completing his apprenticeship in Philadelphia, spent a number of years in the European schools and upon graduation joined the French wars for training in surgery before entering practice. Thus army experience was in a sense the forerunner of our present emergency and intern training.

During the nineteenth century medical education in America was for the most part on a very low standard. Many of the four hundred or more medical schools chartered during that century were weak proprietary institutions. Two generations ago many of our physicians had less than a good grammar school education. Their training for medicine was by apprenticeship. Many of the others had an additional few months training in a college of medicine, with admission standards little above the ability to pay the class room fees. The disastrous record in our army camps in 1898 was ample evidence of the inferior level of medical services available to the nation.

If as Garrison¹ states, "The War of the Revolution was the making of Medicine in this country . . .," the record in the army camps during the Spanish-American War must have played a significant part in stimulating the medical revolution during the early years of the present century. This resulted in a complete reorganization of medical

schools in 1910, and medical education was placed on a sound scientific foundation.

For the first time, World War I found the profession scientifically equipped to cope with many of the problems so disastrous in earlier wars. Typhoid fever, the bane of army camps, was under control. The loss of life from wounds and infections was materially lowered. Excellent as this record was when compared with a quarter of a century earlier, there was still much to be desired. The lack of adequate methods for the control of shock, of ability to cope with head and chest wounds, and with such panepidemics as influenza that proved so costly in both army and civilian life are but a few examples of our limitations.

The emergencies of war forced our surgeons to attempt repairs on organs and regions regarded as unapproachable in civil life. The results obtained stimulated research during the past few decades and produced the excellent technics for brain and chest surgery that are achieving almost unbelievable results with our wounded soldiers. In like manner the inability to control infection and mass epidemics became a challenge to our basic scientists in medical schools and many other research institutions, which has resulted in the sulfa drugs, penicillin, and other agents for the control of epidemics and infections fatal in army life.

Experience gained with these agencies during the present conflict promises well for all civilians. Failures in this war will stimulate investigators in renewed efforts to solve the many new problems which have faced us in the almost uncharted areas of this global war.

POSTWAR MEDICAL PRACTICE

One must know what type of house he wishes to build before adequate plans can be developed. Likewise, in medical education our objectives must be defined before we can develop adequate programs.

To enter the realm of the soothsayer is always dangerous. I do not believe that one needs to be a major prophet, or even have the foresight of a

¹Dean, The State University of Iowa College of Medicine
Prepared for presentation before the Ninety-Fourth Annual Session, Iowa State Medical Society, Des Moines, April 18 and 19, 1945, canceled upon request of the Office of Defense Transportation.

Churchill to observe trends. That all is not well with the practice of medicine cannot be denied. It is an accepted maxim that where there is smoke there must be some fire. Certainly there has been plenty of smoke about the practice of medicine during the past decade or more. Disregarding the agitation of the chronic reformer or of the political opportunist, the criticisms by friends of medicine both within and without our profession support this thesis. An extensive literature has accumulated on the inadequacies of present-day medical services. To refer to but two of these, the reports in 1932 of The Committee on the Cost of Medical Care,² and of the American Foundation³ in 1937 indicate that all is not what it should be. Most of us found little fault with the diagnosis in certain of these surveys although we may have disagreed with the treatment recommended. Like many other problems in medicine, the diagnosis is much simpler than the solution. Even the doubting Thomases cannot lightly shrug off the data at our induction centers. Recognizing that uncontrolled statistics permit of dangerous conclusions, the fact that about 40 per cent of our men between the ages of twenty-one and thirty-five were found unfit for military service is not an encouraging picture. To place the entire responsibility for this on the medical profession or on the inadequacy of medical service is juggling figures to prove a pre-conceived point. The records do not show how many of these conditions existed because the individual did not utilize available services, nor does it show how many of these conditions were beyond the skill of modern medicine and surgery.

We must admit, however, that the health of a nation is the concern of any government. If even 10 per cent of these conditions existed because of unavailable medical services, it is our responsibility to prevent such a condition in the future. Unless organized medicine recognizes this fact and provides a satisfactory solution, some agency perhaps not to our liking will attempt to solve it for us.

Equally significant regarding the demands on medicine in the postwar era is the fact that some millions of our people have for the past few years been receiving the best care that medical science affords. For the first time these millions and many others know what medicine at its best can do. We would be blind indeed if we believed that they will be satisfied with less for themselves and their families in the future.

It is human nature to look for a scapegoat when something goes wrong. The fact that our civilian physicians, when transferred to the armed services, were able to render such excellent services implies that the same quality of service will be available to all veterans returning to civilian life.

To place the blame for inadequate services entirely on us, and to assume that regimentation of the profession will solve the problem, is wrong. Adequate medical services will be available to all economic levels of society only through the active cooperation of the public, the State and Federal Governments, and the medical profession.

The State and Federal Governments must provide through expanded facilities in preventive medicine and public health services assistance in the control of epidemics and disasters. In certain areas of low economic level and in sparsely settled areas, this agency must provide health centers and perhaps some form of subsidy. As a part of the postwar employment program the Federal Government should assist local governments in providing adequate hospital facilities. In states such as Iowa, with the possible exception of some assistance in the construction of hospitals, all needed medical services can be provided on a local basis by the cooperation of the public and the medical profession.

The days of the horse and buggy doctor are gone forever. No individual can be proficient in all branches of modern medical science. No physician can afford all the equipment and ancillary services necessary for accurate diagnosis and treatment and keep the cost within the budget of the majority of our population. The public must provide these services in health centers and hospitals if they expect adequate medical care at a lower cost. The efficiency of Army and Navy medical services is primarily due to group practice. Only through an expansion of group practice on a one-cost basis will it be possible to expand needed service into our smaller centers. Acute as this problem was before the war, it promises to be much more so in the postwar period. The rehabilitation of our civilians under Federal acts passed during the war will demand expanded facilities in physical medicine and many other technics perfected during the past few years.

The medical profession must insist that the standards of medical education are maintained; that only adequately trained individuals of high moral character are licensed to practice; and that they must continue to be qualified to render modern medical services so long as they remain in practice.

It was generally accepted prior to the war that the number of physicians was adequate to meet the needs of the nation, and that distribution, not numbers, was at fault. Graduating more physicians will not improve this condition but will merely increase the concentration in the larger urban centers.

On the other hand, if the public will provide adequate modern hospitals in each county seat and

health centers in other towns, these facilities to be available to any qualified physician, many able young men will elect to locate around these centers and develop group practices. Our larger urban centers would continue to provide the consultation and specialty services and technics beyond the facilities of the smaller hospitals. This is not the fantasy of an idle dreamer, but has evolved from conversations with a number of young army officers on rotation from overseas. There are no counties in our state in which every medical need cannot be provided within the budgets of all persons of moderate means by the above program supplemented by the Blue Cross plan and others being developed by our State Medical Society.

MEDICAL EDUCATION

Three major problems face medical educators after VJ-Day:

1. Refresher courses and residencies for veterans.
2. Continuation courses for all physicians.
3. Reorganization of the undergraduate medical program.

The demand for young physicians in the armed forces required many modifications in graduate and undergraduate medical education. By this fall five classes of about 5,500 each will have graduated in the four years since the declaration of war. About 90 per cent receive commissions in the armed forces on graduation. The emergency compelled the Army and the Navy to limit the postgraduate training of these young men; hence, after July of this year there will be about 11,000 young men in the armed forces with less than the minimal training required for licensure in normal times. About 9,000 others will have had only eighteen months of internship and residency training, and less than 2,000 a maximum of twenty-seven months. Each year that the war lasts a proportionate number from each graduating class will be added to this group of young men whose training has been interrupted by the war. In addition to these, a considerable number of those graduating in earlier classes were members of the medical reserve and were called to active duty before completing their residencies.

The undergraduate training has also been modified under the Army and Navy premedical programs and has been condensed into a fifteen to eighteen months' schedule. All the students were on a forced program. A number were ordered into the program. Many are entering medical schools with unsatisfactory training and lack the maturity needed for such a strenuous discipline. When they graduate, unless the war is over, they will have the additional handicap of the limited internship permitted by the emergency. Because

of reduced staffs in the medical schools, and the stress of practice, few postgraduate or continuation courses were available to the men in civilian practice. Yet in no similar period have so many new agencies and technics been added to modern medicine.

COURSES FOR VETERANS

The various groups in our nation interested in medical education are deeply concerned about the effect the foregoing may have on medical services in the future. Many plans for postwar postgraduate medical education are being studied by the Association of American Medical Colleges, The Council on Medical Education and Hospitals, and various other agencies and educational foundations. All our medical schools are developing plans to meet the needs of the veteran on his return to civilian status. Our preliminary plans have been mailed to all members of our State Medical Society, both in the armed forces and on the home front. These courses will be open to all of you, but we must reserve the right to give preference to the returning veterans.

There are now almost 60,000 civilian doctors in the armed forces. According to the survey made by the Council on Medical Education and Hospitals⁴ about 80 per cent of these men have indicated a desire for postwar training for periods of from three to twenty-four or more months, depending upon the requirements needed to qualify for the Specialty Boards. Undoubtedly numerous factors may modify the desires of many of these officers before final victory. Granting that only one-half of the number indicated by the American Medical Association poll apply for additional training, the magnitude of the task ahead of us becomes obvious. In addition to this demand, we cannot afford to neglect the young people who will continue to graduate but were born too late for this war. Even if demobilization is spread over a number of years schools of medicine and teaching hospitals will be found wanting unless we have the cooperation of many hospitals not now being used for teaching or intern training. Many additional men can be accommodated if these hospitals will combine with schools of medicine in a training program. Under such plans the schools and teaching hospitals can appoint a larger number of interns and residents and rotate them through these nonteaching hospitals for part of their training. All of these hospitals have on their staffs one or more men amply qualified to train these men in their specialty if they will devote part of their time to teaching. The schools can supply the basic training required.

A number of hospitals not quite able to meet these requirements can by a similar reciprocal pro-

gram and by providing general residences furnish excellent training for young men deserving to enter general practice.

So far we have considered only plans for the rehabilitation of the veterans and the few years immediately following the end of the war. I am sure that all will agree that medical educators placing such a limit on postwar plans lack vision. We trust the postwar era will be the unlimited future. Hence we must develop long range plans for both postgraduate and undergraduate medical education.

CONTINUATION COURSES

In the past medical schools have had two primary functions, the training of sufficient young men and women to serve the medical needs of the nation and the training of recruits for teaching and research.

In long range plans this will not be adequate. Adult education in the future will be almost as essential as that of youth. Medicine is never static. Research is producing a continuous flow of new agencies and technics for the diagnosis and treatment of diseases. Many of these require careful training in the methods of application. It will be a duty of schools of medicine, especially those supported by public funds, to provide opportunities for the practicing physicians to keep pace with these advances in scientific medicine. This will be possible through continuation courses in the schools, and through extension services at certain hospitals in the state. These extension courses should not replace such excellent programs as those provided by our Speakers Bureau. Only by these extension services can refresher courses be accessible to many general practitioners.

It will be the duty of the boards of licensure not only to assure the public that physicians are qualified when they are admitted to practice but also that they remain qualified as long as they remain in practice. The day should not be too far distant when licensure will be terminal, to be renewed either on examination over recent advances in clinical medicine or on presenting evidence of having satisfactorily completed approved refresher courses.

UNDERGRADUATE EDUCATION

We are all proud of the records being made by our civilian doctors in the armed forces. The fact that this is done by the men who have graduated from our colleges of medicine during the past three decades is ample argument for maintaining our high standards.

The advances in medical knowledge have been so rapid during the past few decades that it is no longer possible for any man to be proficient in

all branches of our science. It is equally impossible for schools of medicine to make a student an authority on any branch of medicine in the four years allotted to undergraduate training. The best we can hope is to introduce him to the various branches of medicine so that he can utilize his intern and residency time to the optimum advantage. Prior to the war it was becoming more and more difficult to cover adequately all the demands of the curriculum. The many new facts discovered during the war, and the new fields demanding a place in the program will require radical changes in medical teaching in the postwar era.

Many solutions have been proposed for the improvement of medical education. Some have advocated a fifth undergraduate year. In normal times relatively few students completed their undergraduate program before their twenty-fifth year. Most of our graduates were between their twenty-eighth and thirtieth years before they completed their postgraduate training and were ready to seek a location. To add to this time would only complicate the serious sociologic and economic problems facing these young people. Others have advocated a reduction in the premedical requirements. We cannot afford to lower standards. We have experienced the effect of this for the past two years and I am sure most of us will be happier when all our students are admitted on the basis of prewar requirements. The enviable records being made in the Medical Corps of the Army and of the Navy are the results of high standards in medical education. Furthermore, a sampling of student opinion⁵ in the five medical schools of Chicago did not agree with this plan. Of the 586 who returned the questionnaire 61 per cent favored four years of premedical training, 28 per cent three years, and only 9 per cent favored reducing this training to two years. Sixty-four per cent favored the addition of more courses in English, history, economics and political science before entering a medical school.

Other methods of conserving time should be tried before tampering with standards. All premedical education needs restudy. By using a part of the time wasted in the long summer vacations we could easily reduce the ages of medical graduates two or three years. It is regrettable that the experiment with an accelerated program was under the forced Army and Navy pressure, and with a very reduced staff. There is much merit in the continuous program. Time is wasted each year in taking up the slack caused by the three months or more of the summer recess. Much valuable teaching material is lost during this time. I believe that under normal conditions, by admitting but one class a year and carrying on a continuous

program, not only could a year's time be saved but teaching would be more effective.

Undergraduate medical education needs a complete reorganization. The trend toward specialization has limited the range of interest of the specialist to a minor field. For years medical educators have decried this tendency, stressing the necessity of considering the patient as a whole in the diagnosis and treatment of any condition. Paradoxically, they have continued to teach these students on a segmental basis. There have grown up in all medical schools vested rights under the name of departments. Most of these departments are offshoots from Anatomy, Medicine or Surgery, but these departments are teaching students with little or no idea of what is being done in other closely related divisions. A complete correlation of all phases of the medical curriculum is needed. The student from the day he enters a medical school should study medicine as an integrated subject. Such a correlation and integration would weed out nonessential material and unnecessary duplication of efforts. It would make possible the introduction of essential new facts without overloading the students or lengthening the years spent in a medical school. As Johnson⁶ has so aptly stated, "A more rational and time conserving program of study is one in which there are no Anatomy, Physiology or Pathology 'Courses' at all. Instead the Anatomist, the Physiologist and the Pathologist collaborate in presenting an integrated picture of the body in health and disease, in which accidental repetition is eliminated and planned repetition incorporated when required." At present the student enrolls in a school of medicine to become a doctor. At the end of his freshman year he feels that he is no nearer to his goal than during his premedical years.

This is bad psychology. The introduction of some clinical contacts in the freshman year would be a great stimulus to the student and develop a keener interest in the basic subjects. Likewise, the basic subjects should be continued throughout the four years of medicine. Anatomy as now taught is almost a lost subject by the time the student reaches the point where he should apply it. The dissection should be correlated with the clinical years. Physiology would become a much more effective subject if correlated with diagnosis. The same applies to all other basic fields. We have experimented a little with correlation in both the preclinical and the clinical years with considerable improvement in results. Pathology has been correlated with the clinical courses with such a marked stimulation of interest in the student that a number of hours have been eliminated from the course. Anatomy, Physiology and Biochem-

istry have also correlated their subjects with excellent results. The reduced staffs and the accelerated program have hampered the full realization of our plans. I trust that the near future will see real integration of all courses.

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TREATMENT OF CARCINOMA OF THE PROSTATE GLAND

With Special Reference to Stilbestrol and Castration

LAWRENCE E. PIERSON, M.D., Sioux City

Cancer of the prostate gland is a serious problem. As the average age expectancy of life becomes greater, a larger and larger percentage of men reach that stage of life when anatomic changes of the prostate threaten the existence of life or render it so uncomfortable that the patient ceases to be of value to the community. One must not forget that, in some instances at least, this is a distinct economic or cultural loss to the community.

Fortunately 75 to 80 per cent of these changes are benign and usually respond to proper care. Therefore, the remainder, those men with malignant changes, merit considerable thought and discussion.

ETIOLOGY OF PROSTATIC HYPERTROPHY

Until the age of puberty, the prostate gland assumes very little activity in the normal physiology of man. When the testicles become active, the prostate also awakens and develops an external secretion, which forms part of the normal spermatic fluid. This activity is closely related to testicular function, as is proved by a marked atrophy of the prostate in the event that the testes are removed before puberty.

Prostatic function continues to increase until a man is about thirty years of age and remains at its maximum until he reaches forty years of age. After forty, the fibromuscular stroma begins to thicken and the first trace of beginning senile changes are found. These changes, of course, are not constant in all individuals and we may see one man in

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his sixth decade with a large gland as compared to another twenty or thirty years older with a gland of normal size.

The fundamental etiology of prostatic enlargement, either benign or malignant, is unknown. An early theory was based on multiple adenoma formation while still another was based on chronic infection. Modern theories, however, are based on an endocrine factor. Lower and McCullough stated that the germinal cells furnished an endocrine which they called inhibin. This secretion exerted a controlling effect on the pituitary which in turn controlled the production of androsten, a male sex hormone, which was produced by the interstitial cells of the testes. As senile changes occurred in the germinal cells, a lack of inhibin enabled greater pituitary stimulation of androsten secretion which in turn produced prostatic hypertrophy. Laqueur of Amsterdam believed that a simple balance between androgenic and estrogenic hormones controlled the situation and a decrease in estrogens enabled androgenic stimulation of prostatic hypertrophy. In 1940 Huggins showed by castration experiments on benign prostatic hypertrophy that the prostatic epithelium at least was under control of the testes.

PROSTATIC CARCINOMA AND HORMONES

In 1939 Huggins studied the effect of hormones on the prostatic secretion of dogs and learned that it was stimulated by androgens and reduced by estrogens or by castration. Likewise, carbohydrate oxidation in the prostate varied in the same manner, indicating that an oxidative enzyme was involved in the process. By selective staining, the prostatic epithelium can be demonstrated to contain large amounts of acid phosphatase; in fact, after puberty, this concentration is greater than in any other tissue. When prostatic epithelium becomes malignant and grows rapidly, this enzyme also increases in amount. After bony metastases have occurred, the blood level of acid phosphatase usually increases from a normal level of 3 to 5 King-Armstrong units per 100 cubic centimeters of blood and continues to rise to such an extent that one can assume, in the presence of blood acid phosphatase of over 10 units, that skeletal metastases are present.

Alkaline phosphatase is as a rule elevated, but with no particular significance insofar as carcinoma metastases are concerned. Any proliferative osteoplastic process will produce an elevation of alkaline phosphatase.

In 1941, Huggins also showed that in prostatic carcinoma with elevated blood acid phosphatase, castration or injection of large amounts of estrogens produced a reduction of the enzyme to normal levels. On the other hand, androgen administra-

tion increased the enzyme amount in the blood. In three cases with bony metastases, pains in the legs as well as acid phosphatase were increased by injecting testosterone propionate.

TREATMENT OF PROSTATIC CARCINOMA

Complete treatment of prostatic carcinoma must include: (1) Relief of urinary obstruction, (2) relief of pain, and (3) eradication of all malignant tissue with reasonable assurance that it will not recur.

In the early case with no metastases, relief of obstruction may be accomplished by prostatectomy if all malignant tissue is removed. Considerable controversy exists regarding the value of various operations but the essence of success lies in a complete removal, whether by suprapubic, perineal, or endoscopic means. Hugh Young has advocated complete radical perineal prostatectomy with removal of the entire prostatic capsule of Denonvillier, and seminal vesicles, but only 5 per cent of all cases are recognized early enough for this procedure. Gershom Thompson in 1942 believed that transurethral resection with bilateral orchectomy or stilbestrol gave a better prognosis with less risk to life.

Since the development of transurethral prostatic resection, relief of obstruction is an easy procedure in any case. Recurrent obstructions can be resected as often as they recur. More often than one would expect, a single resection will maintain a patent posterior urethra for months or even years before the patient finally expires from extensive carcinoma.

Since Huggins' report of 1941, the relief of pain has been almost dramatic. He reported 21 patients with advanced carcinoma in whom castration gave improvement in 15 cases. After twenty months, four had died and the results in two others were unsatisfactory. In the other fifteen cases, however, there was relief of pain and improvement.

Osseous metastases have shown considerable response to treatment by castration or stilbestrol, but not consistently uniform. At first it was suspected that the results varied with the type of carcinoma and it seemed logical to assume that adenocarcinoma would respond more favorably than a squamous or scirrhous type. However, controlled and thorough investigations have not been able to confirm this opinion. It appears that results are earlier with castration than with stilbestrol, but the final superiority of one method over the other has not been demonstrated. Instead of surgical castration, Munger has advocated irradiation of the testes.

The dosage of stilbestrol should be sufficient to give the maximum, safe, physiologic effect. Overdosage in the male will produce painful or en-

larged breasts. Therefore, the dose should be just below this point. It is safe to begin with 5 milligrams daily, and as the breast symptoms appear gradually reduce the dosage.

CONCLUSIONS

Let it be thoroughly understood that stilbestrol or castration does not represent a cure of prostatic carcinoma. After four years of their use by a large number of urologists, with variable results and opinions, only one result seems agreed upon. Neutralization by stilbestrol or castration does improve a majority of patients and does permit them to live at least much more comfortably if not longer. For want of anything better, therefore, it should be used on every patient with carcinoma of the prostate gland.

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TWO TYPES OF FEEBLEMINDED PATIENTS

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Two of Mother Nature's freaks are the Mongol and Gargoyle. Among the several types of mental defectives to be found in hospitals there are many of the Mongolian type. In the Iowa Hospital for Epileptics and School for Feeble-minded, with an enrollment of seventeen hundred, there are sixty-one Mongols and but one Gargoyle.

Gargoylism is characterized by undifferentiated fingers and toes; the eyes are bulging, yet deeply depressed in the sockets; the speech is defective; and the I. Q. is usually from 40 to 45. Our lone Gargoyle, now nineteen years of age, is typical of his kind. He meets all of the specifications. His mouth is badly deformed; the teeth are scattered over the alveolar ridges, which are so thickened that they meet at the median line and practically obliterate the hard palate. Naturally, his speech is limited, but he apparently masticates his food sufficiently. He can sing many of the popular songs of the day and seems to be observant of the things that go on around him, probably much more so than one afflicted with mongolism.

According to Dorland, the Mongol is a congeni-

tal idiot, characterized by marked liveliness and imitiveness, possessed of a flattened skull, an oblique eye-slit, short thumbs and little fingers; however, the special characteristics of cretinism are absent. The head is small and round. The eyes are set at an oblique angle, with narrow palpebral fissures. Epicanthus, strabismus, and speckled irises are common and blepharitis is almost constant. The forehead is smooth. The skin, also, is smooth during early life, later becoming dry and scaly. Flushed cheeks are present, while lips are usually transversely fissured, often to the point of bleeding. While at ease the individual's mouth is always open. Adenoids and enlarged tonsils are common. The bridge of the nose is flattened and not unlike that of the victim of inherited syphilis. The hands are short and stubby, with spreading, tapering fingers, short and in-curved little fingers. The palmar creases are exaggerated. The great toe is widely separated from its next fellow. The joints are hyperflexible. Often the patient sits with one or both feet behind the head, or with the head resting upon the sole of the foot. It is seemingly natural for him to sit "tailor fashion."

The thyroid gland is usually palpable. The facial expression is vivacious and observant, with great mobility of action. Speech is slow; many Mongols do not develop that function until they have reached the age of six. Very few speak plainly, none fluently. The voice is monotone. In fact a small percentage of Mongolian idiots can be understood when speaking, and their vocabularies are limited. The temperature is normal. The mucous membranes are recurrently catarrhal. Thyroid treatment produces no changes in the physical signs. The I. Q. is from 15 to 20.

The mouth is small, and the dental arch contracted. The teeth are often rudimentary, both as to crowns and roots. They are often pulpless. Prophylactically, they are a problem. The enamel is somewhat roughened and lusterless, and therefore food collects upon them more readily than upon the teeth of normal individuals. They are delayed and irregular in erupting and many mouths show incomplete dentition. The gum tissues are prone to inflammatory conditions and the extraction of several teeth, and more especially the incisors, is the only alternative.

As risks for general surgery, they are very poor. We have performed a few major operations where they were deemed absolutely necessary; in other words, we "took a long shot," and our mortality rate has been 50 per cent.

Social conditions bear no relationship to proportionate numbers. Poverty and unsanitary conditions have no proportionate bearings, or if they

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have it is a fact that there are more Mongolian idiots born to the families of the upper brackets than to those of the lower brackets of our social organization. From the standpoint of sex, the ratio is about 25 per cent more males than females. Mongols are common to all races, but the white race seems to show a preponderance over the other races. In our hospital there has been but one Negro Mongol since the institution was opened in 1915.

Of all children classed as feeble-minded during their first year of life, about 45 per cent are Mongols. Of the two thousand ninety admissions to the Fountain Hospital for Feeble-minded of London, England, 94 per cent were Mongols.

We have no way in which to know of the etiology of the condition. The theories advanced seem plausible, one contending that it is caused by gland dysfunction and another alleging it is because of exhaustion of fertility in the mother, especially when pregnancy occurs toward the end of the productive period. Van der Scheer, in 1927, showed that the average age of the mothers of 154 Mongols was 37.2 at the time of birth, while the average age of the mothers of non-Mongols was 31.2. There is no limit to the number of Mongols which might be born to one couple. Cases are on record of twins, one normal and the mate a Mongol. There is what definitely might be called a "family resemblance" among Mongolian idiots, since they appear to be very much alike, both physically and mentally.

Theirs is a brain disturbance. All criminals are, theoretically at least, victims of prenatal brain injury. The Mongol is not a criminal because his injury has been too great, therefore the fetus never develops beyond a definite stage.

Dr. Thredgold of London has examined the brains of a great number of Mongols who died between the ages of two weeks and twelve years and has found that invariably they possess a small brain, rounded, and characterized by a single convolution pattern and shallow sulci, with no evidence of vascular, meningeal or inflammatory changes. There is no hope of mental enlargement. They will learn to do the simple things, but there is positively no versatility among them. To a degree they are mimics.

Many Mongols die in infancy, many in the second decade, a few reach into the twenties, and fewer into the thirties, while a middle-aged Mongol is uncommon. We had one patient who died at the age of fifty-three, one of the oldest on record. We still have one female who is forty-three and one who is thirty-nine and two who are thirty-six; our oldest male is thirty-one.

We know of no record where a male Mongol

has reproduced. We have one female patient who gave birth to a child by cesarean section. Her father is said to be the sire of the child, which, believe it or not, is said to be normal.

Of the total number of Mongolian inmates in our hospital, 50 per cent are above school age; 13 per cent are below school age, leaving 37 per cent of school age. Of this 37 per cent only 14 per cent, or in other words a total of four, are in school, and these are there only because their parents are overly persistent in their demands that they be placed in school.

CLINICOPATHOLOGIC CONFERENCE

AMEBIASIS

MAJOR JOSEPH E. FLYNN, M.C., A.U.S.

CASE REPORT

Clinical History: The patient, a male forty-two years of age, was admitted to the hospital September 13, 1943, with the chief complaints of abdominal pain, fever, chills, weakness, and cough. He had been well until September 1, 1943, when he experienced anorexia, weakness, and pain in the midline of the lower abdomen. He stated that at the same time the pain appeared there was an elevated temperature. No vomiting, diarrhea, or bloody stools were noted. He was seen by several doctors and was "given many prescriptions" by physicians for "pleuritis and malaria." Quinine was given to tolerance. Physical examination on admission revealed a temperature of 101 degrees. The lungs were negative. There was a split mitral sound, diastolic and systolic, aortic and mitral murmurs. There was no appreciable abdominal tenderness and no masses were felt. The examination was otherwise negative. The icteric index was normal. Shortly after admission he complained of severe, abdominal, cramp-like pain associated with tenderness and rigidity in the right upper quadrant of the abdomen. These symptoms persisted for two weeks. On September 27, 1943, he was surgically explored. A small liver abscess was found. It contained about 120 cubic centimeters of thick creamy pus. The pus was sterile on smear and culture. Amebae and cysts were sought but none were found. Externally the colon appeared normal. Several days after operation 1 grain of emetine hydrochloride was administered subcutaneously and repeated daily for eight

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days. On the twelfth postoperative day the patient complained of double vision and muscular incoordination, followed by a left hemiplegia. Slight icterus was also present. The emetine hydrochloride was discontinued. The hemiplegia immediately cleared without residual. The icterus disappeared. The abdominal wound healed completely. The patient became ambulatory and was discharged from the hospital November 13, 1943. He was readmitted to the hospital on January 21, 1944, with the history that he had been well until January 7 when he had a slight upper respiratory infection. He continued to work until January 19. On this day he experienced shortness of breath and weakness that increased in severity, necessitating hospitalization.

Physical Examination: On admission the patient was markedly dyspneic, orthopneic, and weak. There was considerable ankle edema. The blood pressure was 130/60. There were aortic and mitral double murmurs. Acute right and left cardiac dilatation was present. The pulmonic second sound was greater than the aortic second sound. Râles were heard at the lung bases. There were distended cervical veins. The liver was down four fingerbreadths and was tender. There was Cheyne-Stokes respiration and a protodiastolic apical gallop.

Laboratory Data: X-ray examination of the chest revealed generalized cardiac enlargement and pulmonary congestion. The electrocardiograms showed cardiac hypertrophy, strain, and fibrosis. The admission red blood cell count was 3,000,000; the white blood cell count was 9,800. The hemoglobin was 9 grams. There were 71 per cent neutrophils and 26 per cent lymphocytes. The blood nonprotein nitrogen was 29 milligrams per 100 cubic centimeters. The blood sugar was 95 milligrams per 100 cubic centimeters. The Kahn test was negative. The urine was normal. The sedimentation rate was reported as follows: 15 minutes, 0; 30 minutes, 6; 45 minutes, 16; 60 minutes, 25. The hematocrit reading was 33 per cent. The stools contained occult blood. No parasites or ova could be demonstrated in the three examinations of feces. The prothrombin level was 95 per cent. The icterus index on January 31 was 9.

Course: The cardiac status was that of an acute severe congestive failure. The double murmurs were present since first observation and were difficult to interpret. There was definitely an aortic insufficiency. The basis for aortic insufficiency was not established. Digitalization was produced and maintained. On January 31, ten days after the second admission, he suddenly developed a pain in the right upper and right lower

quadrants of the abdomen. On examination marked tenderness and rigidity of these areas were noted. The white blood cell count was 15,000 with 73 polys. The erythrocytes were 3,640,000. The hemoglobin was 10.5 grams. The pulse was 106. The temperature was 101.6 degrees. A diagnosis was made of an acute surgical condition of the abdomen. A laparotomy was performed that same day. The operative note reads as follows: "Ascending colon was distended, walls indurated and edematous with several grayish black areas, apparently representing impending necrosis. Bowel was adherent to parietal wall. Right lobe liver explored and no abscess encountered at site of previous operation. In separating cecum from parietal wall, bowel was entered and operative field contaminated with bowel contents. The appendix was inflamed, but this was considered a part of the inflammatory process involving colon. No evidence of thrombosis. Mesenteric glands markedly enlarged. Two specimens sent to laboratory: (1) Fluid from encapsulated cystic area between bowel wall and right abdominal wall. (2) Section of bowel wall taken from edge of perforation. Two Penrose drains were inserted in the operative field. Six grams sulfanilamide were applied locally." The patient was extremely ill postoperatively. There was profuse fecal drainage from the operative field. The patient manifested signs of paralytic ileus and continuous suction was applied to the upper gastro-intestinal tract. Medications and fluids were given entirely parenterally. Repeated examinations for the demonstration of amebae (two specimens of the fecal drainage from the wound, and three specimens from the dressings) were made, but no amebae were demonstrated. Because of the pathology in the large bowel, a routine complement fixation test for amebiasis was done. A positive report was received after the patient expired. Because of an apparent sensitivity to emetine, as manifested on the previous admission to the hospital, the drug was not given. No other amebicides were administered. Examination of the tissue taken from the edge of the perforation revealed typhilitis, ulcerative, cause undetermined. No amebae were seen in the tissue. The fluid from the encapsulated cystic area between the bowel and the right abdominal wall was negative on smear and culture. Sulfadiazine was administered intravenously immediately following surgery. A satisfactory sulfadiazine level was demonstrated in the blood ranging from 6.5 to 17.6 milligrams per cent. The patient remained very toxic. Four days before death the urinary output, which had been satisfactory, gradually decreased. The nonprotein nitrogen was 67 and the blood chlorides 650.

Glucose, 10 per cent in distilled water, as well as plasma, was given. The total serum protein was 5.2 grams per cent. Whole citrated blood was given intravenously. The patient was kept in an oxygen tent. He became progressively worse and expired at 6:30 a. m. February 17, 1944.

NECROPSY ABSTRACT

The heart was enlarged. It weighed 470 grams. All chambers of the heart were dilated. There was moderate hypertrophy of the ventricular walls. The pulmonic and tricuspid valves were normal. Both the aortic and mitral valves were stiffened and retracted but there was only slight reduction of their circumferences. In addition, the auricular surface of the mitral valve and the ventricular surface of the aortic valve contained light grayish to reddish brown nodules that extended to the adjacent nonvalvular endocardium. In the right lobe of the liver there was a tiny abscess measuring 5 millimeters. Examination of the pus from this abscess showed numerous organisms morphologically typical of *Endamoeba histolytica*. A localized peritonitis was present. Several loops of ileum were united by fibrinous adhesions to the parietal peritoneum in the region of the left margin of the surgical incision. The adhesions of these loops had in effect divided the peritoneum into a right and left compartment. The right compartment contained the cecum and ascending colon. The left compartment contained the remainder of the intestines. On the right the cecum and colon were covered by thick carpets of fibrin. Subjacent to the region of the surgical incision there was a defect of the anterior wall of the cecum. The adjacent bowel wall was plastered to the parietal peritoneum. The defect of the cecum communicated with the exterior by means of the surgical incision, forming a fecal fistula. In the posterior wall of the cecum there were several defects that communicated with a retroperitoneal abscess measuring 7 centimeters. The abscess involved the cortex of the inferior pole of the right kidney for a distance of 4 millimeters. The mucosa of the cecum, ascending colon, sigmoid, and rectum were extensively ulcerated. The ulcers were large, irregular, often serpiginous, and frequently separated by hyperplastic ridges of mucosa. In the transverse colon there were tiny superficial ulcerations seldom measuring over 2 to 4 millimeters in diameter. Examination of tissue scrapings from the floors of these various ulcers showed large numbers of organisms morphologically typical of *Endamoeba histolytica*. Microscopically, the valves of the heart exhibited the typical changes of a recent rheumatic endocarditis superimposed on an ancient rheumatic fibroplastic deformity. Aschoff nodules were found in the myocardium.

Histologically, the intestinal ulcers were typical of amebiasis.

ANATOMIC DIAGNOSES

1. Amebiasis, rectum, sigmoid, colon, cecum, liver.
2. Fistula, fecal, colonic.
3. Peritonitis, subacute, localized.
4. Pancarditis, acute, rheumatic, manifested by mitral and aortic valvulitis and myocarditis.
5. Valvulitis, old, aortic, with calcific deposition and fibrosis.
6. Myomalacia, left ventricular, marked.
7. Fibrosis, left ventricular, slight.
8. Hypertrophy and dilatation, cardiac, moderate.
9. Pneumonia, lobular, bilateral, marked.
10. Congestion, chronic, passive, lungs, bilateral.
11. Esophagitis, acute, ulcerative.
12. Fibrosis, liver, secondary to abscess surgically drained September 27, 1943.
13. Congestion, spleen, marked.
14. Abscess, minute, liver, right lobe, amebic, recent.
15. Cholecystitis, chronic, moderate.
16. Abscess, retrocecal, with involvement of the kidney, secondary to perforation of the colon January 31, 1944.
17. Hypertrophy, prostatic, moderate.

COMMENT

It is obvious that both the rheumatic heart disease and the amebiasis were present at the time of the first admission. Between the first and second admissions there was a recrudescence of the rheumatic disease, the lesions of which were superimposed on the previously damaged aortic valve, mitral valve, and myocardium. The localized peritonitis was secondary to the perforation of the bowel at the time of the second operation. The retrocecal abscess resulted from the extension of amebic ulcers through the wall of the bowel. The liver abscess drained at the first operation was completely healed. The liver abscess found at autopsy was too small to have produced symptoms.

DISCUSSION

Amebiasis occurs in practically all parts of the world. It is caused by a protozoan parasite, *Endamoeba histolytica*. This parasite exists in two forms—an ameboid or vegetative form and a cyst form.

As a rule, only the cyst form is capable of producing infection in man. The vegetative form is destroyed by the gastric juice of the stomach, whereas the cyst form can pass through the stomach with impunity. The amebic cyst contains four nuclei. When the cyst is activated by the alkaline media of the small intestine, four small amebae are

released. The cyst form of *Endamoeba histolytica* is transmitted to an individual from the feces of an infected individual by water, food, flies, and direct contact contamination. The symptoms vary from dull abdominal pain to a fulminating dysentery. Faust¹ points out that the most common syndrome overlooked is that of appendicitis.

Pathogenesis: The primary pathology of amebiasis is situated in the large bowel. Initially the lesions begin in the cecum, appendix, and ascending colon. The next most common site is the sigmoid and rectum. The transverse colon is involved only in severe cases or infections that have been present for a long period. Even in these cases the lesions in the transverse colon tend to be small. Infection occurs when the amebae that have been liberated in the small intestine come in contact with the mucosa of the large bowel. The amebae penetrate the mucosa, presumably by the action of a proteolytic ferment. When it penetrates through the basement membrane of the surface epithelium into the supporting connective tissue of the lamina propria, some hemorrhage usually occurs. Except in severe infection, there is often no gross hemorrhage. The amebae then push through the muscular layer of the mucosa into the submucosa. Here the amebae spread out laterally between the submucosa and the inner circular layer of the muscularis. The end result is an ulcer having a broad bulbous base communicating with the bowel lumen by means of a narrow neck. The tissue between the ulcers at first shows only a slight inflammatory reaction. This is in marked contrast to what is seen in the bacillary dysentery where the ulcerations are surrounded by a violent inflammatory exudate. This also explains why the stools of patients with amebiasis contain so few pus cells.² At the periphery a few inflammatory cells are usually present. In old ulcerations, the bases of the ulcers often extend into the circular layer of the muscle coat. Occasionally, as in the case reported, the ulcers may extend completely through the bowel to produce a retroperitoneal abscess. Perforation into the peritoneal cavity has been known to occur. In older ulcers, too, there is usually bacterial invasion of the necrotic tissue constituting the wall of the ulcer. When bacterial invasion is marked, pus cells may appear in the stools in appreciable numbers.

Faust¹ has pointed out that amebic invasion of the liver in amebiasis is much more common than one would suspect from a clinical standpoint. In practically every case of amebiasis that comes to autopsy, *E. histolytica* can be seen in the mesenteric venules. In other words, most of the amebae that reach the liver do not colonize. Faust states

that the cause of this amebostatic action is unknown. He found that finely ground fresh liver or fresh liver juice controlled acute amebiasis in dogs when the liver was administered as a high retention enema. He has suggested, therefore, that there is an unknown fraction of the liver to explain this amebostatic action and that a quantitative reduction of the unknown fraction of the liver permits the amebae to colonize with the formation of a liver abscess. It has been pointed out that a high carbohydrate intake in animals provides a better opportunity for the *E. histolytica* to multiply. Hepatitis without abscess formation may also occur.

Diagnosis: The diagnosis of amebiasis is not easy. If, however, the following routine is carried out before discarding the diagnosis of amebiasis, only a small percentage of the cases will be missed. This procedure comprises: First, the examination of three normally passed stools for both vegetative and cyst forms within a period of at least one week. Second, if no organisms are found in the normally passed stools, a purged specimen should be examined. The patient is given a saline cathartic, usually a combination of sodium phosphate and sodium biphosphate before retiring. On the morning following, a stool specimen is collected. This specimen is immediately taken to the laboratory for examination for both vegetative and cyst forms. Third, if the organisms are not found in the purged specimen, then the patient should be given an enema consisting of one liter of saline. Following evacuation of the saline, the enema is immediately repeated and a specimen from the last portion of the second enema taken to the laboratory. Fourth, if no organisms are found, the patient should be prepared for sigmoidoscopy one and one-half hours after the last portion of the second enema has been sent to the laboratory. The mucosa is carefully scrutinized, and if a lesion or lesions are seen, a glass tube should be inserted, the base of the lesion aspirated and the specimen again submitted to the laboratory. This procedure is laborious. It is laborious for the patient, for the clinician and for the ward help. There is, however, no other choice.

Treatment: In the treatment of amebiasis there are three types of drugs available. These are emetine hydrochloride, the iodine compounds, and one arsenic compound.

The dose of emetine hydrochloride is 1 grain (0.06 gram). The indications for emetine hydrochloride are (1) hepatic involvement and (2) acute symptoms such as dysentery. Emetine hydrochloride will relieve the dysentery in 85 per cent of the cases. It is important to remember, however, that emetine hydrochloride will cure the intestinal

lesions in only 33 per cent of the cases.³ Hence, other more effective amebicides must be used for the intestinal lesions. The one disadvantage of emetine hydrochloride is its toxicity. If emetine hydrochloride is given for over a period of six days, the patient must be watched carefully for signs of toxicity. Daily electrocardiography as well as objective (pulse, blood pressure, etc.) and subjective examinations of the patient must be done. Although there is little question as to the toxicity of emetine hydrochloride, the toxic reactions have never been carefully studied.³ There is nothing in the literature correlating age groups, the percentage of patients that can be expected to have a toxic reaction, and the various types of toxic reactions. If a toxic reaction occurs the drug must be stopped immediately. It is usually recommended that emetine hydrochloride be discontinued after six or seven days.

Iodine compounds: The iodine compounds include chiniofon, vioform and diodoquin.

(a) Chiniofon is a valuable drug but unfortunately it often produces a watery diarrhea. The dose of this drug is 15 grains (1 gram) three times a day for eight to ten days. It can also be given as a retention enema. If it is necessary to repeat chiniofon because of recurrence or relapse of the intestinal lesions, the patient should be given a two-week rest period.

(b) The dose of vioform is 4 grains (0.25 gram) three times a day for seven to ten days.

(c) The dose of diodoquin is 9.6 grains (0.6 gram) three times a day for a period of twenty days. This drug will effect a cure in 95 per cent of the cases of amebiasis.³ It has a low threshold of toxicity.

The arsenic compound is carbarsone. This can be used either alone or in conjunction with retention enemas of chiniofon. The dose is 4 grains (0.25 gram) three times a day for seven to ten days.

The best way to discuss therapy is by the use of specific examples. The following examples will cover most of the problems likely to be encountered in the treatment of amebiasis.

Hypothetic case No. 1: The patient has low grade fever and vague abdominal symptoms. *E. histolytica* has been found in the stools. The following treatment can be used:

(a) Emetine hydrochloride, grains 1, subcutaneously for six days. The indication here for the use of emetine hydrochloride is to control a possible subclinical hepatic involvement. Concurrently with the emetine hydrochloride give

(b) Diodoquin, three 3.2 grain tablets three times a day for twenty days.

(c) Have patient return in two months for re-examination. If necessary, repeat the treatment.

Hypothetic case No. 2: The patient has an icteric index of 20, fever, enlarged right lobe of liver. Patient has been constipated for two months. *E. histolytica* has been found in the stools. Treatment would be as follows:

(a) Emetine hydrochloride, 1 grain subcutaneously for ten days. After the sixth day the patient should be carefully watched for a cardiac involvement. This includes a daily electrocardiogram (changes Q-R-S complex and inversion of T-wave). If any sign of toxicity appears, the drug should be stopped. The indication for emetine hydrochloride is the hepatic involvement.

(b) If signs of hepatitis persist, a laparotomy should be performed. If a liver abscess is found, the following is indicated:

(1) Aspiration of liver abscess by closed technic if possible³ (Closed technic means aspiration by needle). Open drainage is strictly condemned and should be rigorously avoided if possible. Open drainage almost invariably results in secondary infection and causes a marked increase in the mortality rate. If necessary to use open drainage, give sulfonamides or penicillin.

(2) After drainage of abscess, give the patient a course of diodoquin.

(3) Have patient return for check-up in two months.

(c) If signs of hepatitis disappear:

(1) Diodoquin by mouth as previously stated. Do not use carbarsone (This drug may be toxic in cases of hepatitis).

Hypothetic Case No. 3: Patient with intestinal amebiasis is unable to take medication by mouth because of nausea and vomiting produced by some other condition:

(a) Emetine hydrochloride, 1 grain subcutaneously for six days. Concurrently give:

(b) Carbarsone or chiniofon by retention enema. If chiniofon is used, dissolve 60 grains (4.0 grams) in 200 cubic centimeters of sterile water, and administer after a cleansing enema of water. If carbarsone is used, dissolve 30 grains (2.0 grams) in 200 cubic centimeters of 2 per cent sodium bicarbonate solution and give as a retention enema after a cleansing enema of 2 per cent sodium bicarbonate solution. Repeat for five consecutive nights. If too irritating, give on alternate nights.

(c) As soon as nausea and vomiting are controlled, administer a course of diodoquin.

(d) Have the patient return in two months.

Hypothetic case No. 4: Patient with longstanding amebiasis has intractable periods of diar-

STATE DEPARTMENT OF HEALTH

Nat. Liering

Tropical Disease Course for Laboratory Workers and Physicians

A special course on Laboratory Diagnosis of Tropical Diseases was conducted at the State Hygienic Laboratory, Medical Laboratories Building, Iowa City, July 23-28, 1945. The course was sponsored by the Department of Hygiene and Preventive Medicine, State University of Iowa, and the Iowa State Department of Health, in co-operation with the United States Public Health Service.

Instruction was under the direction of Milford E. Barnes, M.D., Professor and Head of the Department of Hygiene and Preventive Medicine, assisted by Kenneth MacDonald, M.D., Assistant Professor of Hygiene and Preventive Medicine, and Irving H. Borts, M.D., Director State Hygienic Laboratory.

NATURE OF THE COURSE

On Monday and Tuesday of the week, study was made of malaria, including the clinical nature of the disease; morphology of plasmodia as seen in the thin blood film; staining and mounting of blood films; technic of thick films; morphology of malaria parasites in thick films; laboratory study of thin and thick films; and the study and report of "unknowns" by members of the class. A special feature was the showing of a moving picture film in Kodachrome, depicting pathologic effects of severe malaria infection on the blood cells, capillaries, and circulation of the living experimental animal.

Factual material pertaining to other blood and tissue parasites was presented by lecture, showing

LIST OF ATTENDANTS

Name of Registrant	Hospital	Address	County
1. M. Selo, M.D.	State Hospital	Independence	Buchanan
2. L. A. Zindell	Atlantic Hospital	Atlantic	Cass
3. E. H. Boyer, M.D.	Mercy Hospital	Mason City	Cerro Gordo
4. Mrs. Loretta Gilbert	Mercy Hospital	Clinton	Clinton
5. Mrs. Anna Swendsen	King Hospital	Perry	Dallas
6. Ruth Hohnecker	Mercy Hospital	Dubuque	Dubuque
7. Sister Mary Edward	Mercy Hospital	Oelwein	Fayette
8. Else Waltner	State Hospital	Mount Pleasant	Henry
9. Mrs. Lynn Freifeld	University	Iowa City	Johnson
10. Sister Anna Marie	Mercy Hospital	Anamosa	Jones
11. Mrs. Mildred Taylor	Graham Hospital	Keokuk	Lee
12. Kay Victorine	Mercy Hospital	Cedar Rapids	Linn
13. Ruth Knight	Mercy Hospital	Cedar Rapids	Linn
14. Mrs. Doris Brendel	St. Luke's Hospital	Cedar Rapids	Linn
15. F. O. W. Voigt, M.D.		Oskaloosa	Mahaska
16. Mrs. Edith C. Smith	Veterans Hospital	Knoxville	Marion
17. Ruth Wigand	Onawa Hospital	Onawa	Monona
18. Linda Elijah	State Hospital	Glenwood	Montgomery
19. Sara Lee Weld	State Hospital	Glenwood	Montgomery
20. Jean Prissly	Municipal Hospital	Clarinda	Page
21. Sister Mary Joseph	Mercy Hospital	Des Moines	Polk
22. Eleanor Amberg	Broadlawns Hospital	Des Moines	Polk
23. Doris Malone	Broadlawns Hospital	Des Moines	Polk
24. Ruth Aufderheide	Methodist Hospital	Des Moines	Polk
25. Inga Overland	Methodist Hospital	Des Moines	Polk
26. Althea Winfield	J. E. M. Hospital	Council Bluffs	Pottawattamie
27. Kathleen Christine	Mercy Hospital	Grinnell	Poweshiek
28. H. L. Delaney	Lutheran Hospital	Fort Dodge	Webster
29. Esther Kallevig	Methodist Hospital	Sioux City	Woodbury
30. Alfred Carlson	City Health Department	Sioux City	Woodbury

of slides, moving picture films, and through microscopic study. Parasites included *Trichina spiralis*, *Filaria*, *Trypanosoma*, and *Leishmania*.

Among intestinal parasites considered were *Endamoeba histolytica* and other amebae, *Flagellata*, *Ciliata*, *Nematoda*, *Cestoda* and *Trematoda*.

Members of the group were enthusiastic regarding the value of the course and the benefit each individual derived.

ANNOUNCING SECOND TROPICAL
DISEASE COURSE

A second course on Laboratory Diagnosis of Malaria and Tropical Diseases will be held at the State Hygienic Laboratory, Iowa City, beginning Monday, October 29, and continuing through Saturday, November 3, 1945. Sponsored jointly by the College of Medicine, State University of Iowa, and the Iowa State Department of Health, in cooperation with the U. S. Public Health Service, the course will be similar to that conducted July 23 to 28. Travel and other expenses of those who attend will be met with funds derived through the Public Health Service. The class will be limited to thirty in number.

DISTRIBUTION OF POLIOMYELITIS VIRUS

Three significant articles under the heading "Studies of the Distribution of Poliomyelitis Virus" have appeared in recent medical literature.^{1,2,3}

In these studies specimens which were tested for presence of poliomyelitis virus included "human stools, insects, material from rodents, fecal specimens from farm animals and certain samples of water and milk." Monkeys (*Macacus Mulatta* and *M. cynomolgus*), mice, and cotton rats were the experimental animals inoculated with specimens to determine presence of virus.

The first of these articles deals with the presence of poliomyelitis virus as discovered "in the environment of sporadic cases." In a village in which an adult had poliomyelitis, stool specimens from nearly all the residents were tested. "Virus was recovered only from the six-year-old son of the patient. Pools of specimens from 127 persons in thirty-nine families were uniformly negative."

Virus was not found in fecal specimens of farm animals, nor recovered from flies and mosquitoes, nor from brains and intestines of rats or mice taken from the environment of four sporadic cases in four separate localities.

The second article presents results of the search for poliomyelitis virus in the environment of two cases in a small town. "Of 282 persons in 146

families, the virus was recovered from the brother and a group of 3 cousins of one patient and from children of 8 other families; 5 of these children were 2 years of age.

"From the degree of association of those found to harbor the virus it was concluded that personal association was the principal factor involved in the spread of infection within the community."

The third article reports the distribution of virus as demonstrated "in an urban area during an epidemic."

"During the 1943 epidemic of poliomyelitis in Fort Worth, an intensive study of the distribution of virus was made in a selected district of the city.

"Stools from 524 persons were tested for virus by inoculation into monkeys. Six (75 per cent) of 8 households, representing 27 familial contacts, were positive for virus, as were 8 (18 per cent) of 45 households containing 80 non-familial contacts and two (1.6 per cent) of 127 households representing 374 non-contacts. Virus was harbored by adults in 5 of the 6 positive households of familial contacts.

"Virus was not recovered from specimens of water, sewage, flies, ants, cockroaches or droppings of domestic animals."

REFERENCES

1. Pearson, H. E., Rendtorff, R. C.: Studies of distribution of poliomyelitis virus; v. In environment of sporadic cases. *Am. J. Hyg.*, xli:164-178 (March) 1945.
2. Pearson, H. E., Rendtorff, R. C.: Studies of distribution of poliomyelitis virus; ii. In small town. *Ibid.*, 179-187.
3. Pearson, H. E., Brown, G. C., Rendtorff, R. C., Reidenour, G. M., and Francis, T., Jr.: Studies of distribution of poliomyelitis virus; iii. In urban area during epidemic. *Ibid.*, 188-210.

PREVALENCE OF DISEASE

Disease	July '45	June '45	July '44	Most Cases Reported From
Diphtheria	4	12	11	Clinton, Jefferson, Palo Alto, Woodbury
Scarlet Fever	46	94	68	Polk, Dubuque, Linn
Typhoid Fever	0	0	5	.....
Smallpox	1	2	0	Benton
Measles	85	206	100	Boone, Polk, Calhoun
Whooping Cough	37	2	39	Des Moines, Linn, Polk
Brucellosis	19	8	47	Black Hawk, Buchanan, Clay
Chickenpox	40	89	16	Dubuque, Black Hawk, Linn
German Measles	3	2	3	Boone, Dubuque, Johnson
Influenza	0	0	0	.....
Malaria	26 ^a	57 [*]	29	Clinton, Benton
Meningococcus				
Meningitis	1	9	8	Polk
Mumps	115	258	78	Dubuque, Black Hawk, Washington
Pneumonia	854 ^b	514 ^{**}	2	Polk, Woodbury, Black Hawk
Poliomyelitis	6	2	16	Linn, O'Brien, Polk, Story
Tuberculosis	61	80	108	For the state
Gonorrhea	208	218	214	For the state
Syphilis	104	113	128	For the state

^aTwenty-five of the twenty-six cases were incurred outside the United States.

^bDelayed reports from Iowa Hospitals covering first twenty-six weeks of 1945.

^{*}All infections incurred outside the United States.

^{**}508 of the 514 cases are delayed reports from Iowa Hospitals covering first twenty-six weeks of 1945.

The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

LEE FORREST HILL, Editor.....Des Moines
DENNIS H. KELLY, Associate Editor.....Des Moines

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PEACE AT LAST!

The first reaction of most of us to the news that Japan had unconditionally surrendered was one of uninhibited joy and relief. However, after the first emotional surge had passed, our feelings were tempered by realization that there were many of our boys who would not be coming back. To the loved ones of these our deepest sympathy goes out. For them only memories remain and the knowledge that their loss helped to preserve the world from a tyranny of unspeakable horror. With those whose loved ones will be coming home one of these days we rejoice from the bottom of our hearts.

Naturally our thoughts turn to those of our profession—our Iowa profession—in all corners of the earth, to whom we know the end of the war means so much. Their first thoughts are, of course, to rejoin their families, to see their children—some of them for the first time—and to get accustomed to the feel and looks of civilian clothes. But we surmise that closely following these understandable desires is concern over resuming their civilian practices. Some will feel the need of brushing up on advances made in medical knowledge since they have been out of touch with what has been going on here at home. Others may wonder whether their former patients will have become so firmly entrenched in other practices that it will be difficult to regain the status they held prior to entering the service. We should like to reassure our Iowa doctors who may be concerned on any of these accounts. First of all, we should like them to know that the American Medical Association and their specialty organizations have long anticipated the problems of the returning medical man, and the groundwork has been amply

laid to meet their needs in the way of brush-up courses or even longer and more intensive periods of study in the various teaching institutions throughout the country. Such information as is desired along this line can be obtained by any medical veteran by getting in touch with the AMA office in Chicago. Not only can he learn where to obtain whatever brushing up he may feel he needs, but if he contemplates changing his location to any part of the country he can get complete information concerning a variety of factors about the new location he desires. To those who may be concerned over finding it difficult to redevelop a practice, it is the feeling of the JOURNAL that assurance can be given that such worries are groundless. Civilian doctors have been tremendously overtaxed and their reaction will be only one of relief to share the burden they have been carrying. And so we say to all of you, our medical brethren who still may be in the European or Pacific theaters of war or who are in uniform in this country, hurry home! We are waiting to greet you and to welcome you and to thank you for a job well done!

COLLEGE OF MEDICINE CELEBRATES SEVENTY-FIFTH ANNIVERSARY

On Thursday and Friday, September 27 and 28, the College of Medicine at Iowa City will hold its Diamond Jubilee in honor of its founding in the fall of 1870—seventy-five years ago. The celebration on these two days will take the form of an open house for the friends of the College. Clinics will be held, and two lectures have been scheduled. One of these, the Rockwood Lecture, will be given by Dr. Owen H. Wangenstein, Professor of Surgery in the University of Minnesota, and the other, the Mayo Lecture, by Dr. Ralph H. Major, Professor of Medicine in the University of Kansas. The complete program will be found on page 373.

In the July issue of *The Medical Bulletin* Dr. John T. McClintock, chairman of the committee of the seventy-fifth anniversary, sets forth very interestingly the development of the College of Medicine from its humble beginning shortly after the Civil War to its present position as one of the nation's leading medical institutions. To many of us whose knowledge and memory encompass only the present stately edifices, it comes as something of a surprise to learn that the College began with a faculty of nine professors, thirty-seven students of whom eight were women, in rooms in Old South Hall prepared at a cost of \$3,000, and with sessions of sixteen weeks. Two such sessions were required for graduation. Only three persons were graduated at the commencement exercises on March 1, 1871.

Then, too, it is doubtful if many readers of the JOURNAL are familiar with the heart-breaking struggles the College went through in its early stages of development. Apparently the citizens of Iowa were not too impressed in those days with the importance of a medical school within their state. For instance, Dr. McClintock states that "in 1889 and 1891 the request of the Regents for an appropriation for a hospital failed to receive approval." It was not until 1895-96 that the General Assembly was prevailed upon to approve a 1/10 mill state tax extending over a five year period, the proceeds of which provided for the construction of the University Hospital, completed in 1898 at a cost of \$55,000. In 1910 the College faced perhaps the most critical period in the history of its development. This was occasioned by a private report from the Flexner-Carnegie Foundation medical school survey to the effect that it seemed doubtful if a community as small as Iowa City could be made to support clinical teaching adequately. The choice was between limiting the school to the first two preclinical years or of drastic reorganization. Fortunately, the latter course was followed and from that time on the growth of the College of Medicine in its physical plant, its faculty personnel, and its departments of instruction has been one of constant advancement.

The JOURNAL is pleased to voice its congratulations and felicitations to the College of Medicine on the occasion of its anniversary. It is proud, too, as it knows all the citizens of Iowa are proud, of the high place the College has come to occupy among the medical schools of America. That there will be no cessation of effort to continue the upward spiral of development we can be assured. We urge all of our readers who possibly can to be present in person at Iowa City on September 27 and 28 to make the celebration one to be long remembered.

SYNTHETIC VITAMIN K IN TREATMENT OF URTICARIA

The occasional case of troublesome or chronic urticaria which many physicians encounter always presents a problem. Frequently all of the customary therapeutic measures are carried out without obtaining relief. Black discusses this problem in the March issue of *The Journal of Allergy* with the idea in mind that prothrombin formation might have something to do with the permeability of the capillary wall and hence with urticaria. He postulated that vitamin K might favorably affect the situation. Of a total of 305 cases of chronic urticaria, approximately half yielded to the usual methods of investigation and treatment. How-

ever there remained 156 cases for which relief was not obtained. The patients varied from four years of age on up to young and middle-aged adults. In all of them the urticaria had lasted from a month to twenty years. One hundred and ten of the patients showed some lesions every day. The vitamin K material used was Menadione, the trade name of which is Kappaxin. The oral route of administration was used. Prothrombin time determinations were done on 119 of the patients.

After preliminary experimentation, 6 milligrams daily was the dose decided upon; 2 milligrams were given before each meal. The duration of treatment varied from one to four weeks. Seventy-eight per cent of the patients with prolonged prothrombin times were definitely relieved. Of these 31 per cent had a later relapse but quickly responded to readministration of the vitamin. Second recurrences were not seen in any of the patients. Another observation made by the author is that 32.5 per cent of the patients with normal prothrombin times were relieved by the vitamin K administration.

This study by Black would seem to add another worthwhile therapeutic measure for the physician to have in mind in the management of those cases of chronic urticaria which have so often in the past proved a headache to both the doctor and the patient.

PENICILLIN NOT EFFECTIVE IN TREATMENT OF RHEUMATIC FEVER

Thus far the salicylates have been the only form of medication demonstrated to be therapeutically effective in the management of rheumatic fever. Sulfa drugs were proved early to be not only of no value but even to be actually detrimental in the treatment of this disease. With the advent of penicillin it was to be expected that this drug would also have a thorough experimental trial to determine its therapeutic possibilities in rheumatic fever. That penicillin might have a favorable effect is not entirely foreign since it is known that hemolytic streptococci in the nose and throat bear some relation, although as yet unknown, to the etiology of the disease. It was with this idea in mind that Rantz, Spink, Boisvert, and Captain Coggeshall treated six rheumatic subjects with penicillin. Their report is published in the June issue of *The Journal of Pediatrics*. The authors recognize that the number of cases is too small to evaluate completely the usefulness of penicillin in the treatment of a disease whose course is as variable as rheumatic fever; however, they draw the conclusion that the drug is not only of no value but that it may be actually harmful. In four cases, the ad-

ministration of penicillin was associated with a progressive increase in the severity of the disease. All patients remained febrile, in three pericarditis appeared, and in two heart failure became apparent. When penicillin was stopped and salicylates administered, improvement occurred. An interesting observation was made that penicillin eliminated hemolytic streptococci from the tissues of the nasopharynx; the rheumatic process, however, was not affected.

This study furnishes further evidence that rheumatic fever still remains one of the major unsolved problems of the present age. A great advance in the saving of lives and in the lowering of morbidity will have been achieved when a solution is finally found, and we have every confidence it will be eventually.

SUPREME COURT ACTS ON ILLEGAL PRACTICE

On June 19 the Iowa Supreme Court announced its decision in the case of State vs. J. A. Robinson, holding that the defendant was practicing medicine without a license. The Court's decision in ordering an injunction against the defendant from continuing the practice without a license more clearly defines illegal practice of medicine as carried on by so-called "faith healers."

The opinion, written by Justice Mulroney, stated that the defendant Robinson treated people who called at his home in Webster City, and had no other office. According to the opinion Robinson had been a blacksmith for twenty-three years, had never attended college or medical school, nor received any instruction in medicine or surgery. The opinion quoted Robinson as testifying that his power to heal comes "From the silent, invisible God," and that it came to him about 1931 when he first had the cards printed which contained the following matter and which were passed around through friends:

BE HEALED BY THE POWER OF THOUGHT
Thought is an atom, thought is a wave. Thought is energy directed by the Will Power. Thought is radio active. Thought reins supreme over all other atoms. Therefore you can put the poison atoms out of your system by the power of thought, leaving the pure atoms to build up the body to a healthy condition, but you must be tuned in on the blood, and grounded on the subject of which you are working.
I discovered this method of healing in June, 1928, and have had wonderful results with it and proved to my satisfaction that I am not mistaken 80% get results, 50% come back to a normal condition. Goiter, mastoids, fevers of most all kinds, and some forms of rheumatism disappear like magic and many other complaints and pains disappear instantly.

J. A. Robinson,
Belle Ave., Webster City, Iowa.

The Court had previously, in 1933 in the case of State vs. Royal Miller, refused to interfere with one whose "claim was that he got his power from the Savior; that through faith one could be healed." In deciding the Robinson case the Court overruled the Miller case insofar as it was in conflict.

The Robinson decision eliminates much of the difficulty experienced by the State Department of Health in suppressing the unlawful practice of medicine. The case was ably prepared and submitted by Assistant Attorney General Robert L. Larson.

MINUTES OF MEETINGS OF STATE SOCIETY OFFICERS AND COMMITTEES

Meeting of the Board of Trustees
August 12, 1945

The Board of Trustees of the Iowa State Medical Society met in the central office Sunday morning, August 12, 1945, with the following persons present: Trustees John I. Marker, chairman, W. A. Sternberg, and L. R. Woodward; President R. D. Bernard; President-Elect Robert L. Parker; and H. D. Fallows.

Business transacted was as follows: minutes were read and approved; bills were authorized; outstanding notes for men in service were canceled; and the secretary was authorized to try to collect other notes; storing of valuable State Society records in a fireproof vault was discussed; and the matter of obituaries was left to the Publications Committee.

Meeting of the Committee on Medical Service and Public Relations
August 12, 1945

The Committee on Medical Service and Public Relations of the Iowa State Medical Society met in the main ball room at Hotel Fort Des Moines Sunday morning, August 12, 1945, with the following persons present: Fred Sternagel, chairman, R. D. Bernard, M. C. Hennessy, L. R. Woodward, C. T. Maxwell and R. C. Gutch of the Committee; J. I. Marker and W. A. Sternberg, Trustees; Robert L. Parker, President-Elect; H. D. Fallows and Channing G. Smith.

Meeting was called to order at eleven and Dr. Smith's problems with the Old Age Assistance program were considered. The Committee voted to ask the State Department of Health and the State Board of Social Welfare to initiate legislation for the correction of the nursing home situation, and also voted to have the chairman appoint a committee headed by Dr. Maxwell to procure information from county societies on the old age assistance work in each county, and report back to Dr. Smith and the Committee.

Meeting recessed at noon for lunch, and reconvened at 1:00 p. m. with Dr. Burton O. Clark of the Veterans Administration present, and also Dr. F. L. Nelson of Ottumwa.

Discussion followed on the organization of the mental hygiene society for the state (no action was taken); on writing the Surgeon General and Adjutant General of the Army asking for as speedy a return of doctors from the armed forces as was consistent with the welfare of the wounded soldiers and civilian population; on the employment of Mr. Welch to sign up doctors in Iowa Medical Service (tabled); on newspaper advertising with NPC material (committee was appointed to study this); on a national radio program as started by Michigan (It was voted to give this a 13 weeks' trial); on preparation of an article for the Journal deal-

Veterans Administration Program in Iowa

BACKGROUND

There are 93 veterans hospitals in the United States; there will be 13,000,000 veterans. In Iowa there will be 260,000 male veterans plus 20,000 female veterans for whom no facilities are available at the Des Moines hospital. Already 9,500 Iowa men and women have been discharged with service connected disabilities for which they are drawing a pension. The Veterans Administration is planning to contract for medical and hospital care of these veterans, for service-connected disabilities, in Ottumwa, Council Bluffs, Sioux City, Fort Dodge, Mason City, Waterloo, Cedar Rapids, Dubuque, and Burlington.

MEDICAL RECORDS

When veterans are discharged by the Army or Navy hospitals, their records are sent to the local rating board. Reexamination is made within six to twelve months. All examinations for rating purposes must be made by the designated officer, or in the Veterans Facilities at Des Moines. Fee for this examination is \$5.00, plus necessary laboratory work.

DESIGNATED OFFICERS

Designated officers are physicians, usually service men, who are appointed by the Veterans Administration to serve in their own community. Doctors who wish this work may apply for it. Designated officers make all examinations for rating purposes, but if the patient wishes another doctor to treat an illness he may have him.

CARE OF SERVICE-CONNECTED DISABILITIES

The Veterans Administration is planning to ask hospitals in the ten previously named communities to bid for taking care of hospitalization of veterans for service-connected disabilities. The average fee paid is \$3.00 for ward service, \$4.00 for semiward, and \$6.00 for private rooms. Hospitals make their own bid, however.

Medical care for service-connected disabilities may be given by the doctor of the patient's choice, but compensation is on the basis of an established fee schedule, figures in which represent maximum fees. The fee schedule is being revised at this time, and it is possible that some fees may be raised.

AUTHORIZATION OF CARE

When time permits, authorization of care should be obtained from the Veterans Hospital in Des

Moines. In emergencies, a telephone call may be made, charges reversed, to the hospital asking for authorization.

CARE OF NON-SERVICE-CONNECTED DISABILITIES

When a veteran needs care for a non-service-connected disability, that is his own responsibility, and the doctor and hospital must look to him alone for payment. This may be changed in the future, but at the moment the above statement covers the situation. The veteran is just like any other patient when his illness is non-service-connected.

Some veterans may not be able to pay for such care. In these instances, the doctor can work with the service officer of the American Legion post in the community in trying to work out a solution. Each American Legion post is supposed to have a service officer, a local townsman, preferably an attorney, a Legion member, and he can be of great assistance. Another possible source of financial aid is available through the boards of supervisors. They can levy up to one mill for Soldiers' Relief, and this can be used for medical care along with other types of relief.

PERSONS COVERED

Medical and hospital care will be made available to all veterans, both male and female, for service-connected disabilities. In addition, it is available to those veterans who may incur an illness or injury while they are taking advantage of the educational opportunities offered by the government in the G. I. bill. These veterans are deemed still to be in government service and so are eligible for medical and hospital care.

NEED FOR GOOD RECORDS

Every doctor rendering medical service to veterans should keep in mind the necessity for keeping careful and complete records of medical service rendered. This is imperative for his own protection when he renders his bill to the government, and is also necessary for the protection and benefit of the veteran whose disability record and pension will be based upon the medical records.

[This page will be published monthly as long as the need exists. Doctors who have specific questions about the program are asked to write the central office, prior to the fifteenth of each month, and every effort will be made to answer them in the following issue of the JOURNAL.]

President's Page

VJ-Day has become a reality and with it the welcome news that many of the physicians who have done such a magnificent job in the armed forces will soon be returned to civilian life. The State Society is proud and happy to welcome these men and women, but the happiness is tempered with the knowledge that some of our finest physicians have made the supreme sacrifice. To the families of these men we extend our sincere sympathy, and to the communities from which they are taken we acknowledge their great loss of fine, well trained, conscientious doctors.

Tribute must also be paid to the men on the home front who have worked tirelessly to carry the extra load and who, in some instances, have also paid the price for this extra work with their lives.

The Committee on Medical Service and Public Relations recently authorized the President to request the Adjutant General of the United States Army to give immediate consideration to releasing "as many of the doctors as is consistent with the best interests of the armed forces and the civilian population . . . We feel that insofar as possible the first to be discharged should be those whose communities are most in need of their services, and that it would be an injustice to doctors in the service to keep them in uniform unless their medical training is being utilized."

The central office is cooperating in every possible way with the discharged medical officer. It has a list of available locations and also contact men to assist in the relocation of physicians who desire new locations, or suggest locations available to men who joined the armed forces without previous experience in practice. Advice concerning postgraduate training is available by writing Dean E. M. MacEwen at the State University of Iowa College of Medicine.

Postwar planning for construction of county hospitals is receiving much consideration. The possibility of federal grants to aid in the construction and equipping of such hospitals may appeal as an easy way out, but do not overlook the fact that a locally financed hospital under the direct control of the county medical society will, in the end, prove the better solution of the problem.

Your attention is directed to the program of the Veterans Administration presented on the opposite page. This concerns every doctor in the state not only for the immediate future but for the next decade at least. It concerns every discharged Iowa veteran and those in training in Iowa. It is apparent that the Federal Government is not prepared to care for these people in veterans hospitals at the present time and needs the assistance of physicians in civilian practice. We still have an obligation to guarantee these men the best of medical care. However, in view of the proposed ten year extension of the EMIC program, many doctors have expressed the thought that eventually some effort may be made to include complete care of veterans' families.

The Executive Council will be called in special session early in September for consideration of the program. If you have any comments, after you have studied it, please send them to Dr. John C. Parsons, Secretary of the State Society, who will present them to the Council. The recommendations of the Council will be sent to each county society and also published in the next issue of the Journal.

R. D. Bernard, M.D.

President, Iowa State Medical Society.

SEVENTY-FIFTH ANNIVERSARY

College of Medicine, State University of Iowa

September 27-28, 1945



Present Laboratory Building

MEMBERS OF THE IOWA STATE MEDICAL SOCIETY:

The faculty of the College of Medicine appreciates the invitation from the editor of our State Medical JOURNAL to announce the program for our seventy-fifth anniversary clinic to be held on September 27 and 28.

In preparing this program emphasis has been placed on the topics holding the immediate limelight in all fields of medicine, especially those brought to the front by the war, and our ever present enemy poliomyelitis. In the former group of subjects may I especially call your attention to blood transfusions, to malaria, and to postwar neuroses in relation to office practice. The symposium on poliomyelitis is an attempt to answer certain questions frequently asked by men in general practice.

Your attention is also called to the correlated clinic introducing a modern concept in clinical teaching.

A most cordial welcome is extended to each of

you and it is hoped that the members of the profession will take the opportunity of this special occasion to visit the medical school.

E. M. MACEWEN, M.D., Dean.



First Medical Building

PROGRAM

Thursday Morning, September 27

- 9:45 Welcome—Dean E. M. MacEwen
President Virgil M. Hancher
- 10:00-12:00 Correlated Clinic
A. Medicine, Surgery and Pathology
B. Medicine and Psychiatry

Thursday Afternoon, September 27

- 1:30- 2:00 Blood Bank—Dr. Elmer L. DeGowin
- 2:00- 2:30 Physical Therapy in Arthritis—Dr. William D. Paul
- 2:30- 3:00 Influenza—Dr. William M. Hale
- 3:00- 3:50 Malaria—Dr. Willis M. Fowler and Dr. Milford E. Barnes
- 4:00 Paul Reed Rockwood Lecture
“The Ulcer Problem”
Dr. Owen H. Wangensteen, Professor of Surgery, University of Minnesota
- 6:30 Anniversary Dinner—Hotel Jefferson

Friday Morning, September 28

- 9:00-10:00 Symposium on Poliomyelitis—Medicine, Neurology, Orthopedics, Pediatrics
- 10:00-12:00 Ward Walks—Medicine and Surgery
1st section, 10:00-10:50
2nd section, 11:00-11:50

Friday Afternoon, September 28

- 1:30- 3:50 Demonstrations*
Ward C44, Hospital
- 4:10 Mayo Lecture—Auditorium—Chemistry Building
“Hippocrates and the Island of Cos”
Dr. Ralph H. Major, Professor of Medicine, University of Kansas

*Present List of Demonstrations

- | | |
|--|---------------------------------|
| Clinical Diagnostic Methods in Endocrinology | Obstetrics and Gynecology |
| Renal Stones and Tumors | Urology |
| Blood Transfusion Service | Medicine |
| Bromide Intoxication | Neurology |
| Intracranial Aneurysms | Neurology |
| Rhinoplasty | Otolaryngology |
| Conservation of Hearing | Otolaryngology |
| Photoroentgenograms | Radiology |
| Pathogenic Parasites | Hygiene and Preventive Medicine |
| Analeptic Drugs | Pharmacology |
| Physiotherapeutic Technics in Poliomyelitis | Physical Medicine |
| Skin Grafting Technics | Surgery and Pathology |
| Nerve Block Technics | Anesthesiology |
| Experimental Results with Thiouracil | Physiology |
| Cartilaginous Tumors | Orthopedics and Surgery |
| Studies of Carcinoma in Breast of Cat | Anatomy |
| Testicular Biopsies | Anatomy |
| Gastroscopy | Medicine |
| Clinical Appraisal of Infant's Head Size | Pediatrics |
| Electric Shock Therapy | Neuropsychiatry |
| Common Skin Diseases | Dermatology |



Second Medical Building

Roster of Iowa Physicians in Military Service

As of August 24, 1945

Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) Lt. Col., A.U.S.
Gantz, A. J., Greenfield (Denver, Colo.) Capt., A.U.S.

Adams County

Bain, C. L., Corning (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Willett, W. J., Carbon (APO 230, New York, N. Y.) Capt., A.U.S.

Allamakee County

Hogan, P. W., Waukon
Ivens, M. H., Waukon (Miami Beach, Fla.) Capt., A.U.S.
Kiesau, M. F., Postville (APO 513, New York, N. Y.) Major, A.U.S.
Rominger, C. R., Waukon (Camp Claiborne, La.) A.U.S.

Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.) Major, U.S.P.H.S.
Edwards, R. R., Centerville (APO 513, New York, N. Y.) Major, A.U.S.
Huston, M. D., Centerville (Santa Fe, N. Mex.) Capt., A.U.S.

Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) Major, A.U.S.

Benton County

Koontz, L. W., Vinton (APO 7, San Francisco, Cal.) Capt., A.U.S.
Senfeld, Sidney, Belle Plaine

Black Hawk County

Bickley, D. W., Waterloo (APO New York, N. Y.) Capt., A.U.S.
Bickley, J. W., Waterloo (APO 956, San Francisco, Cal.) Capt., A.U.S.
Butts, J. H., Waterloo (Galveston, Texas) Comdr., U.S.N.R.
Cooper, C. N., Waterloo (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Eriesson, M. G., Cedar Falls (Camp Berkeley, Tex.) Capt., A.U.S.
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) Capt., A.U.S.
Henderson, L. J., Cedar Falls (APO 782, New York, N. Y.) Major, A.U.S.
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) Capt., A.U.S.
Ludwick, A. L., Waterloo (Ablene, Texas) Major, A.U.S.
Marquis, F. M., Waterloo (APO 513, New York, N. Y.) Capt., A.U.S.
O'Keefe, P. T., Waterloo (APO 79, New York, N. Y.) Capt., A.U.S.
Paige, R. T., LaPorte City (Banana River, Fla.) Comdr., U.S.N.R.
Rohlf, E. L., Jr., Waterloo (APO 230, New York, N. Y.) Major, A.U.S.
Seibert, C. W., Waterloo (Colorado Springs, Colo.) Major, A.U.S.
Smith, E. E., Waterloo (Keesler Field, Miss.) Major, A.U.S.
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) Major, A.U.S.
Trunnell, T. L., Waterloo (Parris Island, S. Car.) Lt. U.S.N.R.

Boone County

Brewster, E. S., Boone (APO 446, New York, N. Y.) Major, A.U.S.
Healy, M. J., Boone (Fort Sill, Okla.) Capt., A.U.S.
Shane, R. S., Pilot Mound (Des Moines, Ia.) Lt. Col., A.U.S.

Bremer County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Rathe, H. W., Waverly (APO 209, New York, N. Y.) Lt. Col., A.U.S.
Shaw, R. E., Waverly (Camp Carson, Colo.) 1st Lt., A.U.S.

Buchanan County

Barton, J. C., Independence (APO 519-A, New York, N. Y.) Lt. Col., A.U.S.
Hersey, N. L., Independence (Astoria, Ore.) Lt. Comdr., U.S.N.R.
Leehey, P. J., Independence (APO 244, Unit 3, San Francisco, Cal.) Major, A.U.S.
Loeck, J. F., Aurora (APO 887, New York, N. Y.) Capt., A.U.S.

Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) Capt., A.U.S.
Brecher, P. W., Storm Lake (APO 91, New York, N. Y.) Lt. Col., A.U.S.
Hansen, R. R., Storm Lake (Farragut, Idaho) Lt., U.S.N.R.
Mailliard, R. E., Storm Lake Lt. Col., A.U.S.
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) Capt., A.U.S.
Witte, H. J., Marathon (APO 350, New York, N. Y.) Major, A.U.S.

Butler County

Andersen, B. V., Greene (Pensacola, Fla.) Lt., U.S.N.R.
James, R. A., Allison (Mare Island, Cal.) Lt. Col., A.U.S.
Rolf, F. O., Parkersburg (Springfield, Mo.) 1st Lt., A.U.S.

Calhoun County

Grinley, A. V., Rockwell City (APO 350, New York, N. Y.) Capt., A.U.S.
Hobart, F. W., Lake City (APO 562, New York, N. Y.) Capt., A.U.S.

McVay, M. J., Lake City (Waco, Texas) Capt., A.U.S.
Peek, L. H., Lake City (Camp Carson, Colo.) Capt., A.U.S.
Stevenson, W. W., Rockwell City (Seattle, Wash.) Lt. Comdr., U.S.N.R.
Weyer, J. J., Lohrville (APO 465, New York, N. Y.) Capt., A.U.S.

Carroll County

Anneberg, A. R., Carroll (APO 70, San Francisco, Cal.) Capt., A.U.S.
Anneberg, W. A., Carroll (APO 367, New York, N. Y.) Capt., A.U.S.
Cochran, J. L., Carroll (Gulfport, Miss.) Capt., A.U.S.
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Freedland, Maurice, Coon Rapids Lt., U.S.N.R.
Morrison, J. R., Carroll (APO New York) Major, A.U.S.
Morrison, R. B., Carroll (APO 557, New York, N. Y.) Capt., A.U.S.
Pascoe, P. L., Carroll (Bowman Field, Ky.) Capt., A.U.S.
Scannell, R. C., Carroll (Denver, Colo.) Capt., A.U.S.
Tindall, R. N., Coon Rapids (Camp Grant, Ill.) Major, A.U.S.
Wyatt, M. R., Manning (Stuttgart, Ark.) Capt., A.U.S.

Cass County

Egbert, D. S., Atlantic (Ft. Leavenworth, Kan.) Major, A.U.S.
Ergenbright, W. V., Atlantic (APO 331, San Francisco, Cal.) Capt., A.U.S.
Needles, R. M., Atlantic (APO 131, New York, N. Y.) Capt., A.U.S.
Peterson, M. T., Atlantic (Charleston, S. Car.) Capt., A.U.S.
Schiff, Joseph, Anita (New York, N. Y.) 1st Lt., A.U.S.

Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.) Lt., U.S.N.R.
Mosher, M. L., West Branch (APO 560, New York, N. Y.) Capt., A.U.S.
O'Neal, H. E., Tipton (Minneapolis, Minn.) Lt. Col., A.U.S.

Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.) Major, A.U.S.
Egloff, W. C., Mason City (Omaha, Neb.) Capt., A.U.S.
Fitzpatrick, M. R., Mason City (Ft. Riley, Kan.) 1st Lt., A.U.S.
Flickinger, R. R., Mason City (Memphis, Tenn.) Capt., A.U.S.
Hale, A. E., Dougherty (Atlanta, Ga.) Capt., A.U.S.
Harris, R. H., Mason City (Dyersburg, Tenn.) Capt., A.U.S.
Houlahan, J. E., Mason City (APO 838, New Orleans, La.) Capt., A.U.S.
Lannon, J. W., Clear Lake (APO 339, New York, N. Y.) Capt., A.U.S.
Long, D. L., Mason City (APO 603, Miami, Fla.) Capt., A.U.S.
Morgan, P. W., Mason City (APO 89, New York, N. Y.) Capt., A.U.S.
Mullen, L. M., Mason City (APO 252, New York, N. Y.) Capt., A.U.S.
Sternhill, Irving, Mason City (Ayer, Mass.) Capt., A.U.S.
Tice, G. I., Mason City (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
Tice, W. A., Mason City (Ft. Eustis, Va.) Lt. (jg), U.S.N.R.
Woodward, E. R., Mason City (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.

Cherokee County

Bullock, G. D., Washta (APO 1753, New York, N. Y.) Capt., A.U.S.
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) Major, A.U.S.
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) Capt., A.U.S.

Chickasaw County

Caulfield, J. D., New Hampton (APO 178, New York, N. Y.) Major, A.U.S.
Murphy, A. L., Fredericksburg (Ft. Leavenworth, Kan.) Capt., A.U.S.
O'Connor, E. C., New Hampton (Redmond, Ore.) Capt., A.U.S.
Richmond, P. C., New Hampton (APO 88, New York, N. Y.) Major, A.U.S.

Clarke County

Armitage, G. I., Murray (APO 629, New York, N. Y.) Capt., A.U.S.

Clay County

Edington, F. D., Spencer Col., A.U.S.
Jones, C. C., Spencer (Farragut, Idaho) Lt., U.S.N.R.
King, D. H., Spencer (Great Bend, Kan.) Capt., A.U.S.

Clinton County

Glesne, O. G., Monona (Knoxville, Iowa) Capt., A.U.S.
Rhombert, E. B., Guttenberg (APO 584, New York, N. Y.) Capt., A.U.S.

Clinton County

Amesbury, H. A., Clinton (Vancouver, Wash.) Major, A.U.S.
Burke, J. C., Clinton (Great Bend, Kan.) A.U.S.
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) Capt., A.U.S.

Hill, D. E., Clinton (APO 9787, New York, N. Y.)...Capt., A.U.S.
 King, R. C., Clinton (Clinton, Iowa).....Capt., A.U.S.
 Lenaghan, R. T., Clinton (Olathe, Kans.)...Lt. Comdr., U.S.N.R.
 Normont, J. E., Clinton (San Bruno, Cal.)...Comdr., U.S.N.R.
 O'Donnell, J. E., Clinton (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Riedesel, E. V., Wheatland (Fort Douglas, Utah)
 Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.)...Capt., A.U.S.
 Snyder, D. C., De Witt (APO 520, New York, N. Y.)...Capt., A.U.S.
 Speigel, I. J., Clinton (Galesburg, Ill.).....Capt., A.U.S.
 Van Epps, E. F., Clinton (APO 9921, New York, N. Y.).....Capt., A.U.S.
 Waggoner, C. V., Clinton (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Wells, L. L., Clinton (APO 562, New York, N. Y.)...Capt., A.U.S.

Crawford County

Fee, C. H., Denison (APO 696, New York, N. Y.)...Major, A.U.S.
 Grau, A. H., Denison, (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Maire, E. J., Vail (Humphrey, Nebr.).....Capt., A.U.S.
 Wetrich, M. F., Manilla (Topeka, Kan.).....Capt., A.U.S.

Dallas-Guthrie Counties

Butterfield, E. T., Dallas Center (Palm Springs, Cal.).....1st Lt., A.U.S.
 Byrnes, A. W., Guthrie Center (Fort Custer, Mich.)...Major, A.U.S.
 Fail, C. S., Adel (Fleet PO, San Francisco, Cal.)...Lt. U.S.N.R.
 Margolin, J. M., Perry (APO 350, New York, N. Y.).....Capt., A.U.S.
 McGilvra, R. I., Guthrie Center (Bethesda, Md.)...Lt., U.S.N.R.
 Mullmann, A. J., Adel (APO 565, San Francisco, Cal.).....Capt., A.U.S.
 Nicoll, C. A., Panora (APO 50003, San Francisco, Cal.).....Major, A.U.S.
 Osborn, C. R., Dexter (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Todd, D. W., Guthrie Center.....Capt., A.U.S.
 Wilke, F. A., Woodward.....Capt., A.U.S.

Davis County

Fenton, C. D., Bloomfield (APO 5253, New York, N. Y.).....Capt., A.U.S.
 Gillilan, G. W., Bloomfield.....Lt. Comdr., U.S.N.R.

Decatur County

Gamet, E. E., Lamoni.....Major, A.U.S.

Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.).....Capt., A.U.S.
 Clark, R. E., Manchester (APO 419, New York, N. Y.).....Capt., A.U.S.

Des Moines County

Eigenfeld, M. L., Burlington (Cleveland, Ohio)...1st Lt., A.U.S.
 Heitzman, P. O., Burlington (Fort Lewis, Wash.)...Capt., A.U.S.
 Jenkins, G. D., Burlington (West Point, N. Y.)...Col., A.U.S.
 Lohmann, C. J., Burlington (APO 1055, San Francisco, Cal.).....Lt. Col., A.U.S.
 McKitterick, J. C., Burlington (Hamilton, R. I.).....Comdr., U.S.N.R.
 Moerke, R. F., Burlington (APO 565, San Francisco, Cal.).....Major, A.U.S.
 Sage, E. C., Burlington (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

Dickinson County

Buchanan, J. J., Milford (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Henning, G. G., Milford (San Antonio, Texas)...Major, A.U.S.
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.).....Capt., A.U.S.
 Rodawig, D. F., Spirit Lake (Topeka, Kan.).....Major, A.U.S.

Dubuque County

Anderson, E. E., Dubuque (Bradley Field, Conn.)...Capt., A.U.S.
 Conzett, D. C., Dubuque (APO 887, New York, N. Y.).....Lt. Col., A.U.S.
 Cunningham, J. C., Dubuque (Fairfield, Ohio)...Capt., A.U.S.
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.).....Major, A.U.S.
 Entringer, A. J., Dubuque (APO 41, San Francisco, Cal.).....Capt., A.U.S.
 Hall, C. B., Dubuque (APO 11331, New York, N. Y.)...Capt., A.U.S.
 Knoll, A. H., Dubuque (San Francisco, Cal.).....Major, A.U.S.
 Langford, W. R., Epworth (Miami Beach, Fla.)...Capt., A.U.S.
 Lavery, H. B., Dubuque (Washington, D. C.)...Lt. Col., A.U.S.
 Leik, D. W., Dubuque (Wichita Falls, Tex.).....Capt., A.U.S.
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.)...Capt., A.U.S.
 Olson, P. F., Dubuque (San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Painter, R. C., Dubuque (Salt Lake City, Utah)...Lt., U.S.N.R.
 Paulus, J. W., Dubuque (APO 115, New York, N. Y.).....Capt., A.U.S.
 Plankers, A. G., Dubuque.....Major, A.U.S.
 Quinn, F. P., Dubuque (Brooklyn, N. Y.).....Major, A.U.S.
 Scharle, Theodore, Dubuque (Ft. Sam Houston, Texas).....Capt., A.U.S.
 Schueller, C. J., Dubuque (APO 384, New York, N. Y.).....1st Lt., A.U.S.
 Sharpe, D. C., Dubuque (APO 562, New York, N. Y.).....Major, A.U.S.
 Smith, C. W., Dubuque (Shoemaker, Cal.).....Lt., U.S.N.R.
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.)...Lt. Col., A.U.S.
 Straub, J. J., Dubuque (Bethesda, Md.)...Lt. Comdr., U.S.N.R.
 Ward, D. F., Dubuque (Great Lakes, Ill.)...Lt. Comdr., U.S.N.R.

Emmet County

Clark, J. P., Estherville (APO New York, N. Y.)...Major, A.U.S.
 Collins, L. E., Estherville (APO 247, San Francisco, Cal.).....1st Lt., A.U.S.
 Miller, O. H., Estherville (Seattle, Wash.)...Lt. Comdr., U.S.N.R.

Fayette County

Gallagher, J. P., Oelwein (Peru, Indiana).....Lt., U.S.N.R.
 Henderson, W. B., Oelwein (St. Louis, Mo.)...Lt. Col., A.U.S.
 Sulzbach, J. F., Oelwein
 Walsh, E. W., Hawkeye (Huntington, W. Va.).....A.U.S.
 Walsh, W. E., Hawkeye (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

Floyd County

Baltzell, W. C., Charles City (APO 2, New York, N. Y.).....Major, A.U.S.
 Flater, N. C., Floyd (APO 350, New York, N. Y.)...Capt., A.U.S.
 Huber, R. H., Charles City.....1st Lt., A.U.S.
 Knight, R. A., Rockford (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Mackie, D. G., Charles City (APO 215, New York, N. Y.).....Capt., A.U.S.
 Magdsick, Carl, Charles City (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Miner, J. B., Jr., Charles City (San Diego, Cal.)...Lt., U.S.N.R.
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.).....Capt., A.U.S.

Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) 1st Lt., A.U.S.
 Hedgecock, L. E., Hampton (Camp Lejeune, N. Car.).....Lt. Comdr., U.S.N.R.
 Randall, W. L., Hampton (Oceanside, Cal.).....Lt., U.S.N.R.
 Walton, S. G., Hampton (APO New York, N. Y.)...Capt., A.U.S.

Fremont County

Kerr, W. H., Hamburg (APO 926, San Francisco, Cal.).....Capt., A.U.S.
 Marrs, W. D., Tabor (Sioux Falls, S. D.).....Capt., A.U.S.
 Powell, R. A., Farragut (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Wanamaker, A. R., Hamburg (APO 729, Seattle, Wash.).....Major, A.U.S.

Greene County

Cartwright, F. P., Grand Junction (APO 511, New York, N. Y.).....Capt., A.U.S.
 Castles, W. A., Rippey (APO 958, San Francisco, Cal.).....Major, A.U.S.
 Jongewaard, A. J., Jefferson (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Limburg, J. I., Jr., Jefferson (APO 927, San Francisco, Cal.).....Major, A.U.S.
 Lohr, P. E., Churdan (Cleveland, Ohio).....Lt., U.S.N.R.

Grundy County

Cullison, R. M., Dike (Fort Howard, Md.).....Major, A.U.S.
 Rose, J. E., Grundy Center (Fleet PO, New York, N. Y.).....Lt. Comdr., U.S.N.R.

Hamilton County

Buxton, O. C., Webster City.....Capt., A.U.S.
 Howar, B. F., Jewell (San Antonio, Texas).....Major, A.U.S.
 James, D. W., Kamrar (APO 464, New York, N. Y.).....Capt., A.U.S.
 Lewis, W. B., Webster City (APO 383, New York, N. Y.).....Major, A.U.S.
 Mooney, F. F., Jewell (APO 339, New York, N. Y.)...Capt., A.U.S.
 Paschal, G. A., Williams (Camp Crowder, Mo.)...Capt., A.U.S.
 Patterson, R. A., Webster City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 Ptacek, J. L., Webster City (APO 140, New York, N. Y.).....Capt., A.U.S.
 Schrader, M. A., Webster City (Topeka, Kan.)...1st Lt., A.U.S.
 Thompson, E. D., Webster City (Biloxi, Miss.).....Capt., A.U.S.

Hancock-Winnebag Counties

Dulmes, A. H., Klemme (APO 782, New York, N. Y.).....Capt., A.U.S.
 Eller, L. W., Kanawha (APO 302, New York, N. Y.).....Capt., A.U.S.
 Irish, T. J., Forest City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Shaw, D. F., Britt (APO 334, San Francisco, Cal.)...Major, A.U.S.
 Thomas, C. W., Forest City (APO 519, New York, N. Y.).....Major, A.U.S.

Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.)...Lt., U.S.N.R.
 Houlihan, F. W., Ackley (APO 860, New York, N. Y.).....1st Lt., A.U.S.
 Jansonius, J. W., Eldora.....Capt., A.U.S.
 Johnson, R. J., Iowa Falls (APO 514, New York, N. Y.).....Capt., A.U.S.
 Johnson, W. A., Alden (Orlando, Fla.).....Capt., A.U.S.
 Steenrod, E. J., Iowa Falls.....Lt., U.S.N.R.
 Todd, V. S., Eldora (APO 70, San Francisco, Cal.)...Capt., A.U.S.

Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Ord, Cal.)...Capt., A.U.S.
 Burbridge, G. E., Logan (APO 511, New York, N. Y.)...Major, A.U.S.
 Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.)...Capt., A.U.S.
 Heise, C. A., Jr., Missouri Valley (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Tamsisia, F. X., Missouri Valley (APO 562, New York, N. Y.)...Capt., A.U.S.

Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.)...Major, A.U.S.
 Cogan, Samuel, Mt. Pleasant
 Dwankowski, Carl, Mt. Pleasant (APO 511, New York, N. Y.)...Major, A.U.S.
 Gloeckler, B. B., Mount Pleasant (APO 9768, New York, N. Y.)...Capt., A.U.S.
 Hartley, B. D., Mount Pleasant (Galesburg, Ill.)...Capt., A.U.S.
 Megorden, W. H., Mount Pleasant (Ogden, Utah), Capt., A.U.S.
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.)...Major, A.U.S.

Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Nerling, P. A., Cresco (APO 43, San Francisco, Cal.)...Capt., A.U.S.

Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.)...Capt., A.U.S.
 Coddington, J. H., Humboldt (Oklahoma City, Okla.)...Capt., A.U.S.

Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.)...Capt., A.U.S.
 Martin, J. W., Holstein (Albany, Ga.)...Capt., A.U.S.

Iowa County

Geiger, U. S., North English (San Diego, Cal.)...Lt. Comdr., U.S.N.R.
 McDaniel, J. D., Marengo (APO 1010, San Francisco, Cal.)...Capt., A.U.S.
 Miller, D. F., Williamsburg (San Diego, Cal.)...Lt., U.S.N.R.

Jackson County

Bausch, R. G., Bellevue (APO 251, New York, N. Y.)...Capt., A.U.S.
 Skelley, P. B., Jr., Maquoketa (APO 247, San Francisco, Cal.)...1st Lt., A.U.S.
 Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.)...Major, A.U.S.

Jasper County

Doake, Clarke, Newton...1st Lt., A.U.S.
 Minkel, R. M., Newton (APO New York, N. Y.)...Lt. Col., A.U.S.
 Ritchey, S. J., Newton...Lt. Col., A.U.S.

Jefferson County

Castell, J. W., Fairfield (Ballinger, Texas)...Capt., A.U.S.
 Frey, Harry, Fairfield (Norfolk, Va.)...Lt. Comdr., U.S.N.R.
 Gittler, Ludwig, Fairfield...Lt. Col., A.U.S.
 Graber, H. E., Fairfield (APO 18642, San Francisco, Cal.)...Major, A.U.S.
 Taylor, I. C., Fairfield (Washington, D. C.)...1st Lt., A.U.S.

Johnson County

Agnew, J. W., Iowa City (APO 17604, New York, N. Y.)...Capt., A.U.S.
 Albert, S. M., Iowa City (APO 9622, New York, N. Y.)...1st Lt., A.U.S.
 Allen, J. H., Iowa City (Scott Field, Ill.)...Major, A.U.S.
 Anderson, E. N., Iowa City (APO 647, New York, N. Y.)...Major, A.U.S.
 Boyd, E. J., Iowa City (APO 140, New York, N. Y.)...Capt., A.U.S.
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco, Cal.)...Lt. Col., A.U.S.
 Bunge, R. G., Iowa City (Orlando, Fla.)...Capt., A.U.S.
 Callahan, G. D., Iowa City (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Coburn, F. E., Iowa City (Toronto, Canada)...Capt., R.C.A.
 Cooper, W. K., Iowa City (Mitchell Field, N. Y.)...Capt., A.U.S.
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.)...Capt., A.U.S.
 Diddle, A. W., Iowa City (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Dörner, R. A., Iowa City (APO 230, New York, N. Y.)...Capt., A.U.S.
 Elmquist, H. S., Iowa City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.
 Emmons, M. B., Iowa City (Camp Bowie, Texas)...Capt., A.U.S.
 Field, Grace E., Iowa City (APO 394, New York, N. Y.)...Major, U.S.P.H.S.
 Flax, Ellis, Iowa City (APO 758, New York, N. Y.)...1st Lt., A.U.S.
 Flynn, J. E., Iowa City (Hot Springs, Ark.)...Major, A.U.S.
 Fourn, A. S., Iowa City (APO 34, New York, N. Y.)...Lt. Col., A.U.S.
 Francis, N. L., Iowa City (Annapolis, Md.)...Lt. (jg), U.S.N.R.
 Galinsky, L. J., Oakdale (APO 433, New York, N. Y.)...Capt., A.U.S.
 Garlinghouse, R. O., Iowa City (Ft. Riley, Kan.)...Lt. Col., A.U.S.
 Hardin, R. C., Iowa City (APO 508, New York, N. Y.)...Major, A.U.S.
 Hartung, Walter, Iowa City (Camp Carson, Colo.)...Capt., A.U.S.
 Hess, A. L., Iowa City (APO 472, New York, N. Y.)...Major, A.U.S.
 Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.)...Comdr., U.S.N.R.
 January, L. E., Iowa City (Pyote, Texas)...Major, A.U.S.

Kanealy, J. F., Iowa City (APO 928, San Francisco, Cal.)...1st Lt., A.U.S.
 Keislar, H. D., Iowa City (Washington, D. C.)...Capt., A.U.S.
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.)...Lt. U.S.N.R.
 Laubscher, J. H., Iowa City (Ft. Benning, Ga.)...1st Lt., A.U.S.
 Longwell, F. H., Iowa City (Daytona, Fla.)...Major, A.U.S.
 Moreland, F. B., Iowa City (Maxwell Field, Ala.)...1st Lt., A.U.S.
 Nagvyf, S. F., Iowa City (Fleet PO, New York, N. Y.)...Lt., U.S.N.R.
 Newman, R. W., Iowa City (Jacksonville, Fla.)...Lt. Comdr., U.S.N.R.
 Parkin, G. L., Iowa City (Mountain Home, Idaho) 1st Lt., A.U.S.
 Paulus, E. W., Iowa City (APO 34, New York, N. Y.)...Lt. Col., A.U.S.
 Petersen, V. W., Iowa City (APO 689, New York, N. Y.)...Col., A.U.S.
 Ringrose, E. J., Iowa City
 Sells, R. L., Jr., Iowa City (Palmdale, Cal.)...Capt., A.U.S.
 Smith, H. F., Iowa City (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Springer, E. W., Iowa City (APO 678, New York, N. Y.)...Capt., A.U.S.
 Stadler, H. E., Iowa City (Washington, D. C.)...1st Lt., A.U.S.
 Staggs, W. A., Iowa City...Major, A.U.S.
 Stephens, R. L., Iowa City (Orlando, Fla.)...Capt., A.U.S.
 Stump, R. B., Iowa City (Denver, Colo.)...Capt., A.U.S.
 Titus, E. L., Iowa City (Belmont, Mass.)...Col., A.U.S.
 Trapasso, T. J., Iowa City (APO 520, New York, N. Y.)...Capt., A.U.S.
 Trussell, R. E., Iowa City (APO 75, San Francisco, Cal.)...Capt., A.U.S.
 Voelker, C. A., Jr., Iowa City (Eglin Field, Fla.)...Capt., A.U.S.
 Ward, R. H., Iowa City (Jacksonville, Fla.)...Lt. Comdr., U.S.N.R.
 Weatherly, H. E., Iowa City (APO 72, San Francisco, Cal.)...Capt., A.U.S.
 Wellmann, W. W., Iowa City (Louisville, Ky.)...1st Lt., A.U.S.
 Ziffren, S. E., Iowa City (Springfield, Mo.)...1st Lt., A.U.S.

Junior Members

Adams, M. P., Iowa City...Lt. (jg), U.S.N.R.
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.)...A.U.S.
 Ball, A. L., Iowa City (Camp Polk, La.)...Major, A.U.S.
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.)...Capt., A.U.S.
 Black, N. M., Iowa City (McChord Field, Wash.) 1st Lt., A.U.S.
 Blair, J. D., Iowa City (APO San Francisco, Cal.)...Major, A.U.S.
 Boyd, R. J., Iowa City (Spokane, Wash.)...Capt., A.U.S.
 Brintnall, E. S., Iowa City (Colorado Springs, Colo.)...1st Lt., A.U.S.
 Burr, S. P., Iowa City (APO San Francisco, Cal.) 1st Lt., A.U.S.
 Carney, R. G., Iowa City (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Connole, J. F., Iowa City (Camp Bowie, Texas) 1st Lt., A.U.S.
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.) 1st Lt., A.U.S.
 Coulson, F. H., Iowa City (APO New York, N. Y.)...Capt., A.U.S.
 Decker, C. E., Iowa City (Oklahoma City, Okla.) 1st Lt., A.U.S.
 Donnelly, B. A., Iowa City (APO San Francisco, Cal.)...1st Lt., A.U.S.
 Ehrenhaft, J. L., Iowa City (APO New York, N. Y.)...1st Lt., A.U.S.
 Englerth, F. L., Iowa City (APO San Francisco, Cal.)...Capt., A.U.S.
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 Glassman, A. L., Iowa City (Palm Springs, Cal.) 1st Lt., A.U.S.
 Hamilton, H. E., Iowa City (Chicago, Ill.)...1st Lt., A.U.S.
 Harms, G. E., Iowa City (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 Hendricks, A. B., Iowa City (Klamath Falls, Ore.)...Lt., U.S.N.
 Hovis, Wm., Iowa City (Fleet PO, San Francisco, Cal.)...Lt. (jg), U.S.N.R.
 Ide, L. W., Iowa City (Fort Warren, Wyo.)...1st Lt., A.U.S.
 Jacobs, C. A., Iowa City (APO New York, N. Y.) Major, A.U.S.
 Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.)...1st Lt., A.U.S.
 Keil, P. G., Iowa City (Sioux City, Iowa) 1st Lt., A.U.S.
 Kelberg, M. R., Iowa City (Alameda, Cal.)...Lt., U.S.N.R.
 Keleher, M. F., Iowa City (Great Lakes, Ill.)...Lt. (jg), U.S.N.R.
 Kugler, F. E., Iowa City (Fort Warren, Wyo.)...Capt., A.U.S.
 Lowry, F. C., Iowa City (Sioux Falls, S. D.)...1st Lt., A.U.S.
 McCann, J. P., Iowa City (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 McQuiston, W. O., Iowa City (APO San Francisco, Cal.)...Capt., A.U.S.
 Moen, B. H., Iowa City
 Moon, R. E., Iowa City (APO New York, N. Y.)...1st Lt., A.U.S.
 Odell, Lester, Iowa City (Pensacola, Fla.)...Lt. (jg), U.S.N.R.
 Phillips, R. M., Iowa City (San Francisco, Cal.)...1st Lt., A.U.S.
 Pulliam, R. L., Iowa City (APO 350, New York, N. Y.)...Major, A.U.S.
 Randall, C. G., Iowa City
 Randall, R. G., Iowa City (Waterloo, Iowa) 1st Lt., A.U.S.
 Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.)...1st Lt., A.U.S.
 Russin, L. A., Iowa City (Fort Blanding, Fla.)...Capt., A.U.S.
 Saar, J. L., Iowa City (APO New York, N. Y.)...Capt., A.U.S.
 Sawtelle, W. W., Iowa City...Lt., U.S.N.R.
 Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 Shand, J. A., Iowa City (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 Shapiro, S. I., Iowa City
 Simpson, F. E., Iowa City (Camp Grant, Ill.)...A.U.S.
 Skewis, J. E., Iowa City (Corona, Cal.)...Lt., U.S.N.R.
 Skouge, O. T., Iowa City

Towle, R. A., Iowa City (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Warren, R. F., Iowa City (Santa Barbara, Cal.) A.U.S.
 Watters, V. G., Iowa City (Fort Leonard Wood, Mo.) 1st Lt., A.U.S.
 Wicks, W. J., Iowa City (Camp Crowder, Mo.) Capt., A.U.S.
 Williams, L. A., Iowa City (Treasure Island, Cal.) 1st Lt., A.U.S.
 Willumsen, H. C., Iowa City (Denver, Colo.) Capt., A.U.S.
 Wolkin, J., Iowa City (San Antonio, Texas) Capt., A.U.S.
 Yetter, W. L., Iowa City (APO New York, N. Y.) Capt., A.U.S.
 Zahrt, N. E., Iowa City (Keesler Field, Miss.) Capt., A.U.S.
 Zimmerman, H. A., Iowa City (Santa Ana, Cal.) 1st Lt., A.U.S.

Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.) Capt., A.U.S.
 Doyle, J. L., Sigourney (Camp Berkeley, Texas) A.U.S.
 Engelmann, A. T., What Cheer (Camp Polk, La.) Capt., A.U.S.
 Graham, J. A., Gibson (Needles, Cal.) 1st Lt., A.U.S.
 Montgomery, G. E., Keota (Antioch, Cal.) Capt., A.U.S.

Kossuth County

Clapsaddle, D. W., Burt (Manhattan, Kan.) Capt., A.U.S.
 Corbin, R. L., Luverne (Des Moines, Iowa) Capt., A.U.S.
 Kenefick, J. N., Algona (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Williams, R. L., Lakota (Iowa City, Iowa) Lt. Comdr., U.S.N.R.

Lee County

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.
 Cleary, H. G., Fort Madison (Ft. Benning, Ga.) Capt., A.U.S.
 Cooper, R. E., Keokuk (APO 565, San Francisco, Cal.) Capt., A.U.S.
 Johnstone, A. A., Keokuk (APO 942, Seattle, Wash.) Col., A.U.S.
 McKee, T. L., Keokuk (Miami Beach, Fla.) Major, A.U.S.
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) Major, A.U.S.
 Rankin, J. R., Keokuk (Memphis, Tenn.) Lt., U.S.N.R.
 Richmond, A. C., Fort Madison (San Bruno, Cal.) Lt. Comdr., U.S.N.R.
 Steffy, F. L., Keokuk (Fort Snelling, Minn.) Capt., A.U.S.
 Younan, Thomas, Ft. Madison (APO 758, New York, N. Y.) Capt., A.U.S.

Linn County

Andre, G. R., Lisbon (APO 90, New York, N. Y.) Lt. Col., A.U.S.
 Berney, P. W., Cedar Rapids (APO 519-A, New York, N. Y.) Major, A.U.S.
 Block, W. M., Cedar Rapids (APO 159, San Francisco, Cal.) Capt., A.U.S.
 Chapman, R. M., Cedar Rapids (Chicago, Ill.) Capt., A.U.S.
 Coughlan, V. H., Coggon (Fort Snelling, Minn.) A.U.S.
 Courter, W. O., Springville (APO 464, New York, N. Y.) Major, A.U.S.
 Downing, J. S., Cedar Rapids (Colorado Springs, Colo.) Lt. Col., A.U.S.
 Dunn, F. C., Cedar Rapids (Winfield, Kan.) Major, A.U.S.
 Gearhart, Merriam, Springville (APO 513, New York, N. Y.) Major, A.U.S.
 Gerstman, Herbert, Marion (APO 862, New York, N. Y.) Capt., A.U.S.
 Halpin, L. J., Cedar Rapids (APO 957, San Francisco, Cal.) Major, A.U.S.
 Hecker, J. T., Cedar Rapids (APO 758, New York, N. Y.) Capt., A.U.S.
 Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.) Lt. Col., A.U.S.
 Keith, J. J., Marion (Menlo Park, Cal.) Major, A.U.S.
 Kieck, E. G., Cedar Rapids (San Diego, Cal.) Lt. Comdr., U.S.N.R.
 Kruckenberg, W. G., Mount Vernon (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Leedham, C. L., Springville (Camp Campbell, Ky.) Col., A.U.S.
 Locher, R. C., Cedar Rapids (APO 230, New York, N. Y.) Major, A.U.S.
 MacDougall, R. F., Cedar Rapids (APO 9057, New York, N. Y.) Capt., A.U.S.
 McConkie, E. B., Cedar Rapids (Hines, Ill.) Major, A.U.S.
 McQuiston, J. S., Cedar Rapids (Fort Warren, Wyo.) Lt. Col., A.U.S.
 Meffert, C. B., Cedar Rapids Lt. Col., A.U.S.
 Murray, E. S., Cedar Rapids (APO 512 New York, N. Y.) Lt. Col., A.U.S.
 Netolicky, R. Y., Cedar Rapids (Hawthorne, Nev.) Lt. Comdr., U.S.N.R.
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.) 1st Lt., A.U.S.
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.) Major, A.U.S.
 Parke, John, Cedar Rapids Major, A.U.S.
 Proctor, R. D., Cedar Rapids (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) Major, A.U.S.
 Rieniets, J. H., Cedar Rapids, (Charleston, S. Car.) Lt. Comdr., U.S.N.R.
 Sedlack, L. B., Cedar Rapids (APO 244, San Francisco, Cal.) Lt. Col., A.U.S.
 Smrha, J. A., Cedar Rapids (Topeka, Kan.) Capt., A.U.S.
 Stansbury, J. R., Cedar Rapids (Fort Lewis, Wash.) Capt., A.U.S.
 Sulek, A. E., Cedar Rapids (APO 244, San Francisco, Cal.) Major, A.U.S.
 Woodhouse, K. W., Cedar Rapids (APO 519, New York, N. Y.) Col., A.U.S.
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) Major, A.U.S.
 Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.) Lt. Comdr., U.S.N.R.

Louisa County

DeYarman, K. T., Morning Sun (San Antonio, Texas) Capt., A.U.S.
 Tandy, R. W., Morning Sun (Oakland, Cal.) Lt. Comdr., U.S.N.R.

Lucas County

Lister, K. E., Chariton (Fort Snelling, Minn.) A.U.S.

Lyon County

Cook, S. H., Rock Rapids (Lordsburg, N. Mex.) Major, A.U.S.
 Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Ofag 64, Germany) Capt., A.U.S.
 Moriarty, J. F., Rock Rapids Capt., A.U.S.

Madison County

Boden, H. N., Truro (Fresno, Cal.) Capt., A.U.S.
 Chesnut, P. F., Winterset (Camp Gruber, Okla.) Capt., A.U.S.
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) Capt., A.U.S.
 Wicks, R. L., Winterset (APO 204, New York, N. Y.) Lt. Col., A.U.S.

Mahaska County

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.) Major, A.U.S.
 Bos, H. C., Oskaloosa (APO 758, New York, N. Y.) Major, A.U.S.
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Clark, G. H., Oskaloosa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Gillett, R. M., Oskaloosa (Fleet PO, San Francisco, Cal.) Capt., U.S.N.
 Greenlee, M. R., Oskaloosa (Port Hueneme, Cal.) Lt. Comdr., U.S.N.R.
 Hibbs, R. E., Oskaloosa Major, A.U.S.
 Keohn, G. F., Oskaloosa (APO 4299, San Francisco, Cal.) Major, A.U.S.
 Lemon, K. M., Oskaloosa (APO 637, New York, N. Y.) Capt., A.U.S.
 Reiley, R. E., Oskaloosa (APO 502, San Francisco, Cal.) Major, A.U.S.
 Shurts, J. J., Oskaloosa (Fort Mason, Cal.) Capt., A.U.S.
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.) Capt., A.U.S.

Marion County

Elliott, V. J., Knoxville Major, A.U.S.
 Mater, D. A., Knoxville (Lincoln, Neb.) Major, A.U.S.
 Ralston, F. P., Knoxville (Indio, Cal.) Capt., A.U.S.
 Schiek, C. M., Knoxville Lt. Comdr., U.S.N.R.
 Schroeder, M. C., Pella (Camp Livingston, La.) Capt., A.U.S.
 Williams, D. B., Knoxville Capt., A.U.S.

Marshall County

Carpenter, R. C., Marshalltown (APO 678 New York, N. Y.) Capt., A.U.S.
 Marble, E. J., Marshalltown (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Marble, W. P., Marshalltown (Colorado Springs, Colo.) Major, A.U.S.
 Meyer, M. G., Marshalltown (APO 513, New York, N. Y.) Major, A.U.S.
 Noonan, J. J., Marshalltown (Fort Jackson, S. Car.) Lt. Col., A.U.S.
 Phelps, R. E., State Center (APO 7, San Francisco, Cal.) Capt., A.U.S.
 Smith, E. M., State Center (APO 520, New York, N. Y.) Lt. Col., A.U.S.
 Stegman, J. J., Marshalltown (APO 520, New York, N. Y.) Major, A.U.S.
 Wells, R. C., Marshalltown (Gowen Field, Idaho) Capt., A.U.S.
 Wolfe, O. D., Marshalltown (APO 938, Minneapolis, Minn.) Capt., A.U.S.
 Wolfe, R. M., Marshalltown (Mirimar, Cal.) Lt., U.S.N.R.

Mills County

DeYoung, W. A., Glenwood (APO 228, New York, N. Y.) Capt., A.U.S.
 Kuitert, J. H., Glenwood (St. Cloud, Minn.) Major, A.U.S.
 Magaret, E. C., Glenwood (APO 973, Minneapolis, Minn.) Capt., A.U.S.
 Shonka, T. E., Malvern (APO 403, New York, N. Y.) Capt., A.U.S.

Mitchell County

Culbertson, R. A., St. Ansgar (APO 331, San Francisco, Cal.) Lt. Col., A.U.S.
 Moore, E. E., Osage (APO 591, New York, N. Y.) Major, A.U.S.
 Owen, W. E., Osage (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
 Walker, T. G., Riceville (Hutchinson, Kan.) Lt., U.S.N.R.

Monona County

Almer, L. E., Moorhead (Fort Knox, Ky.) Capt., A.U.S.
 Anderson, S. N., Onawa (Great Lakes, Ill.) Lt., U.S.N.R.
 Ganzhorn, H. L., Mapleton (APO 72, San Francisco, Cal.) Capt., A.U.S.
 Gaukel, L. A., Onawa (Fort Riley, Kan.) Capt., A.U.S.

†Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
 Stauch, M. O., Whiting (Fort Lewis, Wash.) Major, A.U.S.
 Wainwright, M. T., Mapleton (Hines, Ill.) Capt., A.U.S.
 Wolpert, P. L., Onawa (Camp Atterbury, Ind.) Capt., A.U.S.

Monroe County

Bay, F. N., Albia Lt. Comdr., U.S.N.R.
 Gilliland, C. H., Albia (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Heimann, V. R., Albia (Camp Maxey, Texas) Capt., A.U.S.
 Richter, H. J., Albia (Danville, Ill.) Major, A.U.S.
 Smith, R. A., Albia (New Cumberland, Pa.) Capt., A.U.S.

Montgomery County

Bastron, H. C., Red Oak (APO 951, San Francisco, Cal.) Major, A.U.S.
 Hansen, F. A., Red Oak (Hitchcock, Texas) Lt., U.S.N.R.
 Nelson, C. C., Red Oak (Chapel Hill, N. Car.) Lt., U.S.N.R.
 Panzer, E. J. C., Stanton (Point Montara, Cal.) Lt., U.S.N.R.
 Rost, G. S., Red Oak (Halstead, Kan.) Capt., A.U.S.
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) Capt., A.U.S.

Muscatine County

Ady, A. E., West Liberty (Beaufort, S. Car.) Comdr., U.S.N.R.
 Asthalter, R. W., Muscatine (Fort Meade, Md.) 1st Lt., A.U.S.
 Carlson, E. H., Muscatine (APO 901, San Francisco, Cal.) Major, A.U.S.
 Goad, R. R., Muscatine (Memphis, Tenn.) Comdr., U.S.N.R.
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) Major, A.U.S.
 Lindley, E. L., Muscatine (APO 6, San Francisco, Cal.) Capt., A.U.S.
 Muhs, E. O., Muscatine (APO 578, New York, N. Y.) Major, A.U.S.
 Norem, Walter, Muscatine (APO, Miami, Fla.) Capt., A.U.S.
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.) Capt., A.U.S.
 Sywassink, G. A., Muscatine (APO 488-"Y" Forces, New York, N. Y.) Lt. Col., A.U.S.
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.) Lt. Col., A.U.S.

O'Brien County

Getty, E. B., Primghar (APO 153, New York, N. Y.) Capt., A.U.S.
 Hayne, W. W., Paullina (APO 638, New York, N. Y.) Capt., A.U.S.
 Moen, S. T., Hartley Lt. Col., A.U.S.
 Myers, K. W., Sheldon (Topeka, Kan.) Capt., A.U.S.

Osceola County

Kuntz, G. S., Sibley (APO 34, New York, N. Y.) Capt., A.U.S.

Page County

Barnes, C. A., Shenandoah (APO New York, N. Y.) Capt., A.U.S.
 Bauer, Frank, Shenandoah (APO New York, N. Y.) A.U.S.
 Blackman, Nathan, Clarinda (Ft. Benj. Harrison, Ind.) Major, A.U.S.
 Bossingham, E. N., Clarinda (Fort Ord, Cal.) Major, A.U.S.
 Brush, Frederick, Shenandoah (APO New York, N. Y.) A.U.S.
 Bunch, H. McK., Shenandoah (San Diego, Cal.) Lt. Comdr., U.S.N.R.
 Burdick, F. D., Shenandoah (Denver, Colo.) Capt., A.U.S.
 Burnett, F. K., Clarinda (APO 777, New York, N. Y.) Major, A.U.S.
 Rausch, G. R., Clarinda (Sioux City, Iowa) Capt., A.U.S.
 Savage, L. W., Shenandoah (Fort Meade, Md.) 1st Lt., A.U.S.
 Schwidde, Tilford, Shenandoah (APO New York, N. Y.) A.U.S.

Palo Alto County

Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.

Plymouth County

Bowers, C. V., LeMars (APO New York, N. Y.) 1st Lt., A.U.S.
 Fisch, R. J., LeMars (Denver, Colo.) Capt., A.U.S.
 Foss, R. H., Remsen (Homestead, Fla.) Capt., A.U.S.
 Wolfson, Harold, Kingsley (APO San Francisco, Cal.) Lt. Col., A.U.S.

Pocahontas County

Blair, F. L., Jr., Fonda (San Antonio, Texas) Lt., U.S.N.R.
 Herrick, T. G., Gilmore City (APO 9875, New York, N. Y.) Capt., A.U.S.
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.) Capt., A.U.S.
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.) Capt., A.U.S.
 Patterson, A. W., Fonda (Des Moines, Iowa) Capt., A.U.S.

Polk County

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Anderson, N. B., Des Moines (APO 667, New York, N. Y.) Col., A.U.S.
 Angell, C. A., Des Moines (APO 408, New York, N. Y.) Capt., A.U.S.
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.) Lt. Col., A.U.S.
 Barner, J. L., Des Moines (Atlanta, Ga.) Major, A.U.S.
 Barnes, B. C., Des Moines (APO 1009, San Francisco, Cal.) Major, A.U.S.
 Bates, M. T., Des Moines (Inyokern, Cal.) Lt. Comdr., U.S.N.R.
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Bond, T. A., Des Moines (Shoemaker, Cal.) Lt., U.S.N.R.
 Bone, H. C., Des Moines (Arlington, Cal.) Major, A.U.S.

Brown, A. W., Des Moines (APO 562, New York, N. Y.) Capt., A.U.S.
 Bruner, J. M., Des Moines (El Paso, Texas) Major, A.U.S.
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Burgeson, F. M., Des Moines (Hot Springs, Ark.) Capt., A.U.S.
 Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada) Sqd. Leader, R.C.A.F.
 Chambers, J. W., Des Moines (APO 667, New York, N. Y.) Capt., A.U.S.
 Chase, W. B., Jr., Des Moines (Bremerton, Wash.) Lt., U.S.N.R.
 Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.) Capt., A.U.S.
 Connell, J. R., Des Moines (APO 507, New York, N. Y.) Major, A.U.S.
 Corn, H. H., Des Moines (Camp Beale, Cal.) Capt., A.U.S.
 Coughlan, D. W., Des Moines (APO 689, New York, N. Y.) Major, A.U.S.
 Crowley, D. F., Jr., Des Moines (Manchester, N. H.) Major, A.U.S.
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.) Capt., A.U.S.
 DeCicco, Ralph, Des Moines (APO 952, San Francisco, Cal.) Capt., A.U.S.
 Decker, H. G., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Downing, A. H., Des Moines (Clinton, Iowa) Capt., A.U.S.
 Duskinn, M. A., Des Moines (Jefferson Barracks, Mo.) Lt. Col., A.U.S.
 Elliott, O. A., Des Moines (La Junta, Colo.) Capt., A.U.S.
 Ellis, H. G., Des Moines (APO 710, San Francisco, Cal.) Capt., A.U.S.
 Ervin, L. J., Des Moines (Victoria, Texas) Lt. Col., A.U.S.
 Fleck, W. L., Des Moines (Ft. Howard, Md.) Lt. Col., A.U.S.
 Fried, David, Des Moines (Carlisle Barracks, Penn.) 1st Lt., A.U.S.
 Fracasse, John, Des Moines 1st Lt., A.U.S.
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Gerchek, E. W., Des Moines Major, A.U.S.
 Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.) Major, A.U.S.
 Glomset, D. A., Des Moines (APO 152, New York, N. Y.) Capt., A.U.S.
 Goldberg, Louie, Des Moines (APO 926, San Francisco, Cal.) Capt., A.U.S.
 Gordon, A. M., Des Moines (APO 464, New York, N. Y.) Capt., A.U.S.
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Greek, L. M., Des Moines (APO 758, New York, N. Y.) Capt., A.U.S.
 Gurau, H. H., Des Moines (Austin, Texas) Capt., A.U.S.
 Haines, D. J., Des Moines (APO 75, San Francisco, Cal.) Capt., A.U.S.
 Harris, D. D., Des Moines (Gulfport, Miss.) Lt. Comdr., U.S.N.R.
 Harris, H. L., Des Moines (Salina, Kan.) 1st Lt., A.U.S.
 Hess, John, Jr., Des Moines 1st Lt., A.U.S.
 James, A. D., Des Moines (Fort Eustis, Va.) Capt., U.S.N.R.
 Johnston, C. H., Des Moines (Spokane, Wash.) Lt. Col., A.U.S.
 Kast, D. H., Des Moines (Fort Stevens, Ore.) Capt., A.U.S.
 Kelley, E. J., Des Moines (Columbus, Ohio) Lt. Comdr., U.S.N.R.
 Kirch, W. A. W., Des Moines (Astoria, Ore.) Lt. Comdr., U.S.N.R.
 Klockslem, H. L., Des Moines (APO New York, N. Y.) Capt., A.U.S.
 Landis, S. N., Des Moines (West Palm Beach, Fla.) 1st Lt., A.U.S.
 La Tona, Salvatore, Des Moines 1st Lt., A.U.S.
 Lederman, James, Des Moines 1st Lt., R.C.A.
 Lehman, E. W., Des Moines (APO 565, San Francisco, Cal.) Major, A.U.S.
 Losh, C. W., Jr., Des Moines (APO 752, New York, N. Y.) Capt., A.U.S.
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Maloney, P. J., Des Moines (Fort Lewis, Wash.) 1st Lt., A.U.S.
 Marquis, G. S., Des Moines (Brooklyn, N. Y.) Lt. Comdr., U.S.N.R.
 Martin, L. E., Des Moines (Helena, Ark.) 1st Lt., A.U.S.
 Matheson, J. H., Des Moines (San Leandro, Cal.) Lt. Comdr., U.S.N.R.
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.) Capt., A.U.S.
 McCoy, H. J., Des Moines (Iowa City, Iowa) Comdr., U.S.N.R.
 McDonald, D. J., Des Moines (APO 339, New York, N. Y.) Major, A.U.S.
 McNamee, J. H., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Mencher, E. W., Des Moines 1st Lt., A.U.S.
 Merkel, B. M., Des Moines (Denver, Colo.) Major, A.U.S.
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.) Capt., A.U.S.
 †Morden, R. P., Des Moines (APO 635, New York, N. Y.) Capt., A.U.S.
 Mumma, C. S., Des Moines (Los Angeles, Cal.) Major, A.U.S.
 Murphy, J. H., Des Moines (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Nelson, A. L., Des Moines (Camp Livingston, La.) Major, A.U.S.
 Noun, L. J., Des Moines (Newport, R. I.) Lt., U.S.N.R.
 Noun, M. H., Des Moines (APO 228, New York, N. Y.) Major, A.U.S.
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.) Lt., U.S.N.R.
 Overton, L. M., Des Moines (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Patton, B. W., Des Moines (Camp Robinson, Ark.).....1st Lt., A.U.S.
 Pearlman, L. R., Des Moines (El Paso, Texas).....Major, A.U.S.
 Peisen, C. J., Des Moines (APO 165, New York, N. Y.).....Major, A.U.S.
 Penn, E. C., West Des Moines (APO 650, New York, N. Y.).....Capt., A.U.S.
 Pfeiffer, E. P., Des Moines.....Major, A.U.S.
 Phillips, A. B., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Porter, R. J., Des Moines (APO 635, New York, N. Y.).....Capt., A.U.S.
 Powell, L. D., Des Moines (Fleet PO, San Francisco, Cal.).....Capt., U.S.N.R.
 Pratt, E. B., Des Moines (APO New York, N. Y.).....Lt. Col., A.U.S.
 Priestley, J. B., Des Moines (Swannanoa, N. C.).....Lt. Col., A.U.S.
 Purdy, W. O., Des Moines (APO 562, New York, N. Y.).....Major, A.U.S.
 Riegelman, R. H., Des Moines.....Major, A.U.S.
 Robinson, V. C., Des Moines (Gulfport, Miss.).....Major, A.U.S.
 Rotkow, M. J., Des Moines (Camp Atterbury, Ind.).....Capt., A.U.S.
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Schlaser, V. L., Des Moines (Hutchinson, Kan.).....Lt., U.S.N.
 Shepherd, L. K., Des Moines (APO New York, N. Y.).....Major, A.U.S.
 Shiffler, H. K., Des Moines.....Capt., A.U.S.
 Singer, P. L., Des Moines (Camp Grant, Ill.).....1st Lt., A.U.S.
 Skultety, J. A., Des Moines (Fleet PO, San Francisco, Cal.).....P. A. Surg., U.S.P.H.S.
 Smead, H. H., Des Moines (APO 595, New York, N. Y.).....Capt., A.U.S.
 Smith, H. J., Des Moines (Chicago, Ill.).....Lt. Comdr., U.S.N.R.
 Smith, R. T., Des Moines (APO 713, Unit I, San Francisco, Cal.).....Capt., A.U.S.
 *Snodgrass, R. W., Des Moines (APO 9528, New York, N. Y.).....Capt., A.U.S.
 Snyder, G. E., Grimes (Galesburg, Ill.).....Major, A.U.S.
 Sohn, H. A., Des Moines (Des Moines, Ia.).....Lt. Comdr., U.S.N.R.
 Sorensen, R. M., Des Moines (Topeka, Kan.).....Major, U.S.P.H.S.
 Springer, F. A., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Stearns, A. B., Des Moines (Denver, Colo.).....Major, A.U.S.
 Stickler, Robert, Des Moines (APO New York, N. Y.).....Major, A.U.S.
 Stitt, P. L., Des Moines (Seattle, Wash.).....Lt. (jg), U.S.N.R.
 Throckmorton, J. F., Des Moines (APO 339, New York, N. Y.).....Major, A.U.S.
 Toubes, A. A., Des Moines (APO 635, New York, N. Y.).....Capt., A.U.S.
 Turner, H. V., Des Moines (Camp Robinson, Ark.).....Capt., A.U.S.
 Undergraft, Thomas, Des Moines (APO San Francisco, Cal.).....Capt., A.U.S.
 Van Hale, L. A., Des Moines (Des Moines, Iowa) Major, A.U.S.
 Vaubel, E. K., Des Moines (Washington, D. C.).....Capt., A.U.S.
 Wagner, E. C., Des Moines (APO 1009, San Francisco, Cal.).....Capt., A.U.S.
 Willett, W. M., Des Moines (APO 507, New York, N. Y.).....Capt., A.U.S.
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Zarchy, A. C., Des Moines (Camp Cooke, Cal.).....Capt., A.U.S.

Pottawattamie County

†Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.).....Major, A.U.S.
 Collins, R. M., Council Bluffs (Pensacola, Fla.).....Lt., U.S.N.R.
 Dean, A. M., Council Bluffs (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 Edwards, C. V., Council Bluffs (Pensacola, Fla.).....Lt. Comdr., U.S.N.R.
 Floersch, E. B., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Hennessy, J. D., Council Bluffs (Clinton, Okla.).....Lt. Comdr., U.S.N.R.
 Jensen, A. L., Council Bluffs (Ft. Lewis, Wash.).....Lt. Col., A.U.S.
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.).....Lt., U.S.N.R.
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.).....Capt., A.U.S.
 Limbert, E. M., Council Bluffs (APO 403, New York, N. Y.).....Major, A.U.S.
 Maiden, S. D., Council Bluffs (Camp Hood, Texas).....Major, A.U.S.
 Martin, L. R., Council Bluffs (Auburn, Cal.).....Capt., A.U.S.
 Mathiasen, H. W., Neola (Alexandria, La.).....Capt., A.U.S.
 Moskovitz, J. M., Council Bluffs (APO 887, New York, N. Y.).....Capt., A.U.S.
 Renfield, R. T., Council Bluffs (Staten Island, N. Y.).....Major, A.U.S.
 Standeven, W., Oakland (Colorado Springs, Colo.).....Capt., A.U.S.
 Sternhill, Isaac, Council Bluffs (Camp Crowder, Mo.).....Capt., A.U.S.
 Tinley, R. E., Council Bluffs (APO 600, New York, N. Y.).....Major, A.U.S.
 Treynor, J. V., Council Bluffs (Chicago, Ill.).....Comdr., U.S.N.R.
 West, A. G., Council Bluffs (APO 230, New York, N. Y.).....Capt., A.U.S.
 Wieseler, R. J., Avoca (McChord Field, Wash.).....A.U.S.
 Wurl, O. A., Council Bluffs (APO 887, New York, N. Y.).....Lt. Col., A.U.S.

Poweshiek County

Brobyn, T. E., Grinnell (APO 18593, New York, N. Y.).....Major, A.U.S.

Hickerson, L. C., Brooklyn (APO 559, New York, N. Y.).....Capt., A.U.S.
 Korfmacher, E. S., Grinnell (APO 923, San Francisco, Cal.).....Capt., A.U.S.
 Parish, J. R., Grinnell (Oakland, Cal.).....Lt. Comdr., U.S.N.R.
 Somers, P. E., Grinnell (Denver, Colo.).....1st Lt., A.U.S.

Ringgold County

Seaman, C. L., Mount Ayr (Fort Smith, Ark.).....Major, A.U.S.

Sac County

Bassett, G. H., Sac City (Mobile, Ala.).....Lt. Comdr., U.S.N.R.
 Deters, D. C., Schaller (APO 34, New York, N. Y.).....Capt., A.U.S.
 Evans, W. I., Sac City (APO 9212, New York, N. Y.).....Capt., A.U.S.
 Klocksiem, R. G., Odebolt (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Neu, H. N., Sac City.....Lt. Col., A.U.S.

Scott County

†Baker, R. W., Davenport (APO 511, New York, N. Y.).....Capt., A.U.S.
 Balzer, W. J., Davenport.....Capt., A.U.S.
 Bishop, J. F., Davenport (Camp Wheeler, Ga.).....Major, A.U.S.
 Block, L. A., Davenport (Cambridge, Ohio).....Major, A.U.S.
 Boden, W. C., Davenport (APO 3760, New York, N. Y.).....Capt., A.U.S.
 Boyer, U. S., Davenport (Rock Island, Ill.).....Lt. Col., A.U.S.
 Brown, M. J., Davenport (APO 562, New York, N. Y.).....Lt. Col., A.U.S.
 Carey, E. T., Davenport (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.
 Christensen, C. C., Dixon (APO 961, San Francisco, Cal.).....Capt., A.U.S.
 Coleman, Tom, Davenport (APO 230, New York, N. Y.).....Capt., A.U.S.
 Cummins, G. M., Jr., Davenport (Fort Custer, Mich.).....Capt., A.U.S.
 Decker, C. E., Davenport (APO 321, San Francisco, Cal.).....Major, A.U.S.
 Evans, H. J., Davenport (Daytona Beach, Fla.).....Capt., A.U.S.
 Gibson, P. E., Davenport (Palm Springs, Cal.).....Major, A.U.S.
 Goenne, Wm., Jr., Davenport (APO 91, New York, N. Y.).....Capt., A.U.S.
 Hurevitz, H. M., Davenport.....Major, A.U.S.
 Hurteau, Everett, Davenport (APO 647, New York, N. Y.).....Capt., A.U.S.
 Hurteau, W. W., Davenport (Camp Barkeley, Texas).....Major, A.U.S.
 Kimberly, L. W., Davenport (Oak Ridge, Tenn.).....Capt., A.U.S.
 Krakauer, Max, Davenport (APO 758, New York, N. Y.).....Capt., A.U.S.
 Kuhl, A. B., Jr., Davenport (Ft. Meade, Md.).....1st Lt., A.U.S.
 LaDage, L. H., Davenport (APO 339, New York, N. Y.).....Major, A.U.S.
 Lorfeld, G. W., Davenport (Columbus, Ohio).....Capt., A.U.S.
 McMeans, T. W., Davenport (APO 557, New York, N. Y.).....Capt., A.U.S.
 Neufeld, R. J., Davenport (APO 565, Unit I, San Francisco, Cal.).....Capt., A.U.S.
 Perkins, R. M., Davenport (APO 121B, New York, N. Y.).....Capt., A.U.S.
 Rendleman, Hugh, Davenport (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Sheeler, I. H., Davenport (APO 350, New York, N. Y.).....Capt., A.U.S.
 Shorey, J. R., Davenport (APO 204, New York, N. Y.).....Capt., A.U.S.
 Smazal, S. F., Davenport (APO 230, New York, N. Y.).....Capt., A.U.S.
 Sorenson, A. C., Davenport (Oakland, Cal.).....Comdr., U.S.N.R.
 Sunderbruch, J. H., Davenport (APO 70, San Francisco, Cal.).....Capt., A.U.S.
 Weinberg, H. B., Davenport (APO 72, San Francisco, Cal.).....Major, A.U.S.
 Zukerman, C. M., Bettendorf (Camp McCoy, Wis.).....Capt., A.U.S.

Shelby County

Bisgard, C. V., Harlan (Farragut, Idaho).....Lt. Comdr., U.S.N.R.
 Griffith, W. O., Shelby (APO 9490, New York, N. Y.).....Capt., A.U.S.
 McGowan, J. P., Harlan (La Jolla, Cal.).....Lt. Comdr., U.S.N.R.

Sioux County

Gleysteen, R. R., Alton (Portsmouth, Va.).....Lt. Comdr., U.S.N.
 Grossmann, E. B., Orange City (APO 403, New York, N. Y.).....Capt., A.U.S.
 Larson, M. O., Hawarden (APO 562, New York, N. Y.).....Lt. Col., A.U.S.
 Oelrich, A. M., Hull (APO New York, N. Y.).....1st Lt., A.U.S.
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.).....1st Lt., A.U.S.

Story County

Conner, J. D., Nevada (APO 73, San Francisco, Cal.).....Capt., A.U.S.
 Fellows, J. G., Ames (APO 451, New York, N. Y.).....Major, A.U.S.
 Lekwa, A. H., Story City (Treasure Island, Cal.).....Lt. Comdr., U.S.N.R.
 McFarland, G. E., Jr., Ames (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.

McFarland, J. E., Ames (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Rosebrook, L. E., Ames (APO 433, New York N. Y.) Major, A.U.S.
 Sperow, W. B., Nevada, (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Thorburn, O. L., Ames (Clovis, N. Mex.) Major, A.U.S.
 Wall, David, Ames (APO 448, New York, N. Y.) 1st Lt., A.U.S.

Tama County

Bezman, H. S., Traer (APO 9875, New York, N. Y.) Capt., A.U.S.
 Boller, G. C., Traer (Ft. Riley, Kansas) Capt., A.U.S.
 Dobias, S. G., Chelsea (APO 86, San Francisco, Cal.) Capt., A.U.S.
 Havlik, A. J., Tama (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Standefer, J. M., Tama (Des Moines, Iowa) Lt., U.S.N.R.

Taylor County

Hardin, J. F., Bedford (APO 952, San Francisco, Cal.) 1st Lt., A.U.S.

Union County

Beatty, H. G., Creston (New Orleans, La.) 1st Lt., A.U.S.
 Paragas, M. R., Creston (APO 442, San Francisco, Cal.) Capt., A.U.S.
 Ryan, C. J., Creston Capt., A.U.S.

Wapello County

Brentan, Emanuel, Ottumwa (Camp Carson, Colo.) Capt., A.U.S.
 Brody, Sidney, Ottumwa (Monticello, Ark.) Lt. Col., A.U.S.
 Gilfillan, C. D. N., Eldon (Battle Creek, Mich.) Capt., A.U.S.
 Howell, H. P., Ottumwa (Hamilton Field, Cal.) Major, A.U.S.
 Hughes, R. O., Ottumwa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Moore, G. C., Ottumwa (APO 314, New York, N. Y.) Capt., A.U.S.
 Prewitt, L. H., Ottumwa (Louisville, Ky.) Major, A.U.S.
 Selman, R. J., Ottumwa (El Paso, Texas) Col., A.U.S.
 Struble, G. C., Ottumwa (Cleveland, Ohio) Lt. Col., A.U.S.
 Whitehouse, W. N., Ottumwa (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Warren County

Fullgrabe, E. A., Indianola (Fleet PO, New York, N. Y.) Lt., U.S.N.R.
 Hoffman, G. R., Lacona (Camp San Louis Obispo, Cal.) Capt., A.U.S.
 Shaw, E. E., Indianola (APO 832, New Orleans, La.) Capt., A.U.S.
 Trueblood, C. A., Indianola Capt., A.U.S.

Washington County

Boice, C. L., Washington (Arlington, Wash.) Lt., U.S.N.
 Droz, A. K., Washington (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Mast, T. M., Washington (Great Lakes, Illinois) Lt. Comdr., U.S.N.R.
 Miller, J. R., Wellman (APO New York, N. Y.) 1st Lt., A.U.S.
 Stutsman, R. E., Washington (Patuxent River, Md.) Lt., U.S.N.R.
 Ware, S. C., Kalona (APO 627, New York, N. Y.) Major, A.U.S.

Wayne County

Hyatt, C. N., Jr., Humeston (Longview, Texas) Capt., A.U.S.

Webster County

Baker, C. J., Fort Dodge (APO New York, N. Y.) Major, A.U.S.
 Burch, E. S., Dayton (Camp Crowder, Mo.) Capt., A.U.S.
 Burleson, M. W., Fort Dodge (Pasadena, Cal.) Capt., A.U.S.
 Coughlan, C. H., Fort Dodge (Camp Carson, Colo.) Major, A.U.S.
 Dawson, E. B., Fort Dodge (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Glesne, O. N., Ft. Dodge (New River, N. C.) Lt. Comdr., U.S.N.R.
 Joyner, N. M., Fort Dodge (Minneapolis, Minn.) A.U.S.
 Kluever, H. C., Fort Dodge (St. Louis, Mo.) Lt. Comdr., U.S.N.R.
 Larsen, H. T., Fort Dodge (Pensacola, Fla.) Lt., U.S.N.R.
 Shrader, J. C., Fort Dodge (APO 758, New York, N. Y.) Lt. Col., A.U.S.
 †Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.) Capt., A.U.S.
 Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.) Capt., A.U.S.
 Van Patten, E. M., Ft. Dodge (Colorado Springs, Colo.) Capt., A.U.S.

Winneshiek County

Fritchen, A. F., Decorah (Mare Island, Cal.) Comdr., U.S.N.R.
 Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.) Lt. Col., A.U.S.
 Larson, L. E., Decorah (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Svendsen, R. N., Decorah (San Diego, Cal.) Lt. (jg), U.S.N.R.
 Van Besien, G. J., Decorah (Springfield, Mo.) Capt., A.U.S.

Woodbury County

Bettler, P. L., Sioux City (APO 235, San Francisco, Cal.) Lt. Col., A.U.S.
 Blackstone, M. A., Sioux City (San Francisco, Cal.) Capt., A.U.S.
 Boe, Henry, Sioux City (Fort Snelling, Minn.) Capt., A.U.S.
 Burroughs, H. H., Sioux City (Portsmouth, Va.) Lt., U.S.N.R.
 †Cmelya, P. M., Sioux City (P.O.W., c/o Japanese Red Cross, Tokyo, Japan) Capt., A.U.S.

Cowan, J. A., Sioux City (Oklahoma City, Okla.) Major, U.S.P.H.S.
 Crowder, R. E., Sioux City (Kansas City, Mo.) Lt. Comdr., U.S.N.R.
 Dimsdale, L. J., Sioux City (Clinton, Iowa) Capt., A.U.S.
 Down, H. I., Sioux City (APO 758, New York, N. Y.) Lt. Col., A.U.S.
 Elson, V. J., Danbury (Ft. Leonard Wood, Mo.) Capt., A.U.S.
 Frank, L. J., Sioux City (Fleet PO, San Francisco, Cal.) Comdr., U.S.N.R.
 Graham, J. W., Sioux City (Pensacola, Fla.) Lt. Comdr., U.S.N.R.
 Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.) Capt., A.U.S.
 Harris, D. M., Sioux City (APO 403, New York, N. Y.) Capt., A.U.S.
 Heffernan, C. E., Sioux City (APO 17682, San Francisco, Cal.) Capt., A.U.S.
 Hicks, W. K., Sioux City (Spokane, Wash.) Major, A.U.S.
 Honke, E. M., Sioux City (Palm Springs, Cal.) Major, A.U.S.
 Kaplan, David, Sioux City (APO 36, New York, N. Y.) Capt., A.U.S.
 Knott, P. D., Sioux City (Camp Crowder, Mo.) Capt., A.U.S.
 Knott, R. C., Sioux City (APO 403, New York, N. Y.) Major, A.U.S.
 Krigten, W. M., Sioux City (Springfield, Mo.) Lt. Col., A.U.S.
 Lande, J. N., Sioux City (APO 63, New York, N. Y.) Major, A.U.S.
 Martin, R. F., Sioux City (APO 403, New York, N. Y.) Capt., A.U.S.
 Mattice, L. H., Danbury (APO 713, San Francisco, Cal.) 1st Lt., A.U.S.
 McCuiston, H. M., Sioux City (APO 209, New York, N. Y.) Major, A.U.S.
 Mugan, R. C., Sioux City (Miami Beach, Fla.) Capt., A.U.S.
 Osinecup, P. W., Sioux City (APO 520, New York, N. Y.) Capt., A.U.S.
 Rarick, I. H., Sioux City (Fresno, Cal.) Capt., A.U.S.
 Reeder, J. E., Jr., Sioux City (APO 209, New York, N. Y.) Major, A.U.S.
 Ryan, M. J., Sioux City (Topeka, Kan.) Major, A.U.S.
 Schwartz, J. W., Sioux City (APO 816, New York, N. Y.) Lt. Col., A.U.S.
 Tracy, J. S., Sioux City (Camp Polk, La.) Major, A.U.S.

Worth County

Westly, G. S., Manly (APO 927, San Francisco, Cal.) Major, A.U.S.

Wright County

Aagesen, C. A., Dows (APO 383, New York, N. Y.) Capt., A.U.S.
 Bird, R. G., Clarion (Asbury Park, N. J.) Lt. Comdr., U.S.N.R.
 Doles, E. A., Clarion (Spokane, Wash.) Capt., A.U.S.
 Gorrell, R. L., Clarion (Denver, Colo.) P.A. Surg., U.S.P.H.S.
 Leinbach, S. P., Belmond (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.) Capt., A.U.S.

(*) Reported missing in action.
 (†) Reported deceased in service.
 (‡) Reported prisoner of war.

AMEBIASIS

(Continued from page 364)

rhea alternating with constipation. Stools contain many pus cells. There is no response to dodoquin, emetine hydrochloride, or other standard amebicides.

(a) Papaverine hydrochloride, 1 grain (60 milligrams) intravenously two to three times daily to relieve spasm of bowel.

(b) Sulfadiazine by mouth to clear up secondary bacterial invasion.

(c) Sodium citrate by mouth to prevent sulfonamide urolithiasis.

(d) Give high retention enemas of finely ground *fresh* liver.

(e) Repeat dodoquin.

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1. Faust, E. C.: Some modern conceptions of amebiasis (Alvarenga Prize lecture). Science, xcix:45 (January 21) 1944; 69 (January 28) 1944.
2. Callender, G. R.: Differential pathology of dysentery. Am. J. Trop. Med., xiv:207-220 (May) 1934.
3. Sodemam, W. A.: Tulane University of Louisiana, personal communication to author.

WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

President—MRS. SOREN S. WESTLY, Manly

President-Elect—MRS. ARTHUR E. MERKEL, Des Moines

Secretary—MRS. KEITH M. CHAPLER, Dexter

Treasurer—MRS. HARRY W. DAHL, Des Moines

ANNUAL REPORTS OF COUNTY AUXILIARIES Dallas-Guthrie

The Dallas-Guthrie Auxiliary held three regular meetings during the year. Many of the members attended the state convention in April.

At the January meeting in Adel an outstanding paper, "The Doctor's Contribution to the War Effort," was presented by Mrs. E. J. Butterfield of Dallas Center.

In July the Society met in Woodward. We were entertained at the home of Mrs. H. W. Smith, our Secretary. A report of the state meeting was given by Mrs. Smith. Those present very much enjoyed viewing and discussing the fine collection of glass Dr. and Mrs. Smith have as their hobby.

We met in Panora in October. A fine report on the National Convention was brought to the Auxiliary by Mrs. E. T. Warren of Stuart. Mrs. Hornaday of Des Moines, a guest of the Auxiliary, also brought a message from the convention and reported on the Nurses Loan Fund. Mrs. C. A. Nicoll of Panora gave an interesting talk on "Experiences of an Army Doctor's Wife."

There were twenty-four members this year. We lost two members by death, Mrs. D. J. Brookings of Woodward and Mrs. S. J. Foster of Adel.

We voted five dollars to the Nurses Loan Fund. We sent in thirty subscriptions to *Hygeia*, which placed us sixth in the national contest. We sent in one subscription to *The Bulletin*.

We all have many extra outside activities contributing to the war effort, but we should feel, more than ever, that this is a time when we can well follow the five point form of the objects of the Auxiliary as arranged in the New Constitution.

Mrs. Chas. E. Porter, President

Polk County

Membership for the year 1944-45 totaled 113.

Five luncheon meetings were held, the first of which was in March with Colonel John I. Marker, M.C., A.U.S., as the speaker. His subject was "Personality Development."

The second meeting was held in May at Younkers Tea Room with Miss Adah Hershey, Director of Public Health Nursing, scheduled to speak on "War Time Problems of Public Health Nursing." Due to illness, Miss Hershey could not appear, and Miss Mary Stark, assistant to Miss Hershey, gave the talk.

The September meeting was a bridge-luncheon held in the Colony room of the Commodore hotel. This meeting was the best attended of the year. War stamps were given as prizes.

The November meeting was held at Younkers Tea Room with Dr. W. W. Bauer, Director of Health Education of the American Medical Association as the scheduled speaker. Much planning had gone into this meeting but a few days prior to his expected arrival, he telegraphed that he had been summoned to Washington and could not come to Des Moines. Dr. Martin I. Olsen graciously substituted for him and spoke on the subject, "A Proposed Plan for Medical Care in Iowa." Dr. Olsen was chairman of the committee from the Iowa State Medical Society to formulate such a plan for consideration.

The January meeting consisted of the election of officers and the presentation of annual reports.

Our War Service Committee under the leadership of Mrs. James A. Downing did a most worthy piece of work throughout the year. Each month groups met at Lutheran, Mercy and Broadlawns hospitals and sewed for these same hospitals; 2,426 articles were completed.

Mrs. A. E. Merkel was chairman of U.S.O. activities, and in that field noteworthy work was also done. Until the closing of the Fifth Street U.S.O. in August, which was brought about by the closing of Camp Dodge as an induction center, Auxiliary members served food twice a month at the U.S.O., bearing the expense without drawing upon our treasury. A total of \$57.00 was paid in for this work, beside the food contributed. One tea was also served at the Locust Street U.S.O. with Auxiliary members contributing 24 dozen cookies and money for punch and cakes.

The Hygeia committee, of which Mrs. Robert L. Parker was chairman, placed, as usual, *Hygeia* subscriptions in 43 Des Moines public schools. The schools subscribed for 22 magazines and our commission paid for the other 21. Our Auxiliary donated subscriptions to the following community agencies: Roadside Settlement, South Side Community House, Salvation Army Center, Jewish Community Center, Y.W.C.A., Y.M.C.A., and Locust Street U.S.O. Mrs. Fred Sternagel of the Hygeia committee, contributed a year's subscription to the elementary school, the junior high school and the library in West Des Moines. Mrs. Parker gave subscriptions to the Negro Y.M.C.A. and Y.W.C.A.

In financial contributions, the Auxiliary gave \$25.00 to the Red Cross and \$15.00 to the State Auxiliary Nurses Loan Fund.

Mrs. H. I. McPherrin, President

MEMBERSHIP OF STANDING COMMITTEES

1945-1946

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Dr. Robert L. Parker, President-Elect..... Des Moines

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Mrs. Nelson M. Whitehill..... Boone
Mrs. Paul O. Nelson..... Emmetsburg
Mrs. Fred A. Rolfs..... Aplington
Mrs. William V. Thornburg..... Guthrie Center
Mrs. Harold W. Morgan..... Mason City

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Mrs. William C. Kennedy..... Somers

COUNTY AUXILIARY NEWS

Dallas-Guthrie

The Woman's Auxiliary to the Dallas-Guthrie Medical Society met with the doctors for their regular midsummer meeting in Woodward, Thursday, July 19. After a joint luncheon at the Haas Cafe, the Auxiliary members held their meeting at the home of Dr. and Mrs. Howard Smith, with ten members and twelve guests present.

In the absence of the president, Mrs. K. M. Chapler, Mrs. A. J. Ross presided. Reports from the standing committees were given. It was voted to have a family picnic at Spring Park.

The program was presented by Mrs. A. J. Ross; she discussed "Penicillin" and "Superstitions."

Butler

The Woman's Auxiliary to the Butler County Medical Society met with the doctors for a potluck supper at the Country Club in Greene, July 9. Following supper the meeting was held with nine members present. A very interesting article on "Postwar Planning" was given by Mrs. MacLeod.

The program for the August meeting in Clarks-ville was to be provided by Mrs. W. E. Day.

MRS. WESTLY SAYS

That over \$12,000 has been collected for the Cancer Drive.

That her work through the Extension Directors of the Farm Bureau is to obtain speaking dates for Dr. E. G. Zimmerer of the State Department of Health.

SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 2:45 p. m.

WSUI—Thursdays at 3:00 p. m.

September 5-6 Mumps and Whooping Cough
Harry L. Vander Stoep, M.D.

September 12-13 Abdominal Pain
Emil C. Petersen, M.D.

September 19-20 Worry
Philip M. Day, M.D.

September 26-27 Anesthesiology
Don S. Challed, M.D.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. WALTER L. BIERRING, Des Moines, Chairman

DR. HENRY G. LANGWORTHY, Dubuque, *Secretary* DR. CHARLES L. JONES, Gilmore City

DR. CLYDE A. HENRY, Farson

DR. LESTER C. KERN, Waverly

Medical History of Wapello County

CLYDE A. HENRY, M.D., Farson

Part V

A COMPENDIUM OF WAPELLO COUNTY MEDICAL HISTORY FROM 1853 TO 1945

(Continued from last month)

LATER PROMINENT PHYSICIANS*

Dr. Alfred O. Williams was born at Nauvoo, Illinois, November 6, 1849, and died at his home in Ottumwa, May 21, 1926. He was the son of Alfred O. and Minerva (Townsend) Williams. His parents were natives of Portage County, Ohio. They came to Nauvoo in 1849. In 1854 he moved with his family to Clinton, Iowa, where his father engaged in the drug business until 1876, when he retired and moved to Belvidere, Illinois, where he died in 1896.

Dr. A. O. Williams was educated in the public schools in Clinton, and at the State University of Iowa, receiving his A. B. degree in 1873 and M. D. in 1875. While at the University, he defrayed a part of his expenses by teaching German. Soon after graduating, in 1875, he moved to Eldon, Iowa, but in March of the following year he moved to Ottumwa to become, at the end of half a century, one of the outstanding physicians in the medical history of Wapello County. He reviewed the rapid progress of medicine and surgery, year by year, by diligent study of current medical literature and frequent visits to many of the great medical centers. He was one of the most active members of the Wapello County Medical Society and the Des Moines Valley Medical Association, and was a member of the Iowa State Medical Society and the American Medical Association. He was appointed surgeon for the Chicago, Rock Island and Pacific Railway Company in 1875, and the Chicago, Burlington and Quincy Railway Company in 1885; he was also surgeon for the Ottumwa Electric Railway Company for many years; he was a member of the

National Association of Railway Surgeons, and the American Academy of Medicine. He firmly believed in and practiced a high standard of medical ethics.

Since the Society met in his office regularly for more than forty years, his attendance equaled or excelled that of any other member. And, if a speaker failed at the last moment to present his contribution to the scheduled program, Dr. Williams could always be relied on to fill in with an interesting bit of medical history, ranging from the days of Hippocrates and Galen to the pioneer doctors who founded the Wapello County Medical Society. He was an accomplished scholar, with a background of practical knowledge, and repartee, that placed his services in demand above any member of the Society on festal occasions. Of the many tokens of appreciation bestowed upon Dr. Williams by his confreres, none perhaps was more enjoyable than the program that followed a banquet given as an appreciation of his forty years' service in the profession on April 25, 1916, at the Ballingall Hotel, in Ottumwa, which subjected him to the following

ORDEAL

Bonus Publicus . . .	Versus . . .	Dr. A. O. Williams
Presiding Judge . . .		Hon. W. D. Tisdale
Bailiff . . .		Dr. L. P. Torrence

CHARGES

That A. O. Williams has for forty years maintained quarters at 120 South Court Street, Ottumwa, Iowa, in which from time to time has met and conspired a Band of Leeches. That said A. O. Williams has furnished light, heat, good cheer and often cigars and other entertainment. That such Leeches have and still do profit by the ills of the community, and in such practices are aided and abetted by said A. O. Williams.

*Group picture appeared in February issue.

WITNESSES

Plaintiff	Defense
Dr. H. C. Eschbach	Dr. M. Bannister
Dr. S. A. Spilman	Dr. D. C. Brockman

AND OTHER WITNESSES

CONTRE COUPE . . . Dr. A. O. Williams

Summing up evidence . . .

Verdict—Judge W. D. Tisdale

Fraternally, Dr. Williams was a member of the Knights of Pythias, the B. P. O. E., and the modern Woodmen of America.

In 1880, he was united in marriage with Miss Nettie C. Warden, daughter of W. H. Warden, founder and publisher of the Ottumwa Courier, and to them were born three daughters: Bessie, Jeanette, and Virginia. Miss Bessie Williams survives and resides in Ottumwa.

Dr. Edward Tyler Edgerly was born in Ottumwa, Iowa, in 1864, the son of John W. and Maria L. (Chambers) Edgerly, natives respectively of Boston, Massachusetts, and Zanesville, Ohio.

He enjoyed the advantages of a liberal pre-medical education, and graduated from the medical department of the Northwestern University, Chicago, with the class of 1899. He was for a time actively engaged with the J. W. Edgerly Wholesale Drug Company, of which his father was founder. About 1894 he became actively engaged in the practice of medicine and continued to practice medicine until his death occurred November 17, 1931.

Dr. Edgerly was a cultured and refined gentleman, a careful, conscientious physician, scrupulously ethical, and he exerted a beneficent influence over the members of his profession and the community at large. He was an active member of the county, state and national societies, in all of which he took an active part.

He was one of the first to volunteer his services when our country became engaged in World War I, serving throughout the war in responsible positions, gaining rank and honor for himself and country.

Dr. William Hansell was born February 17, 1855, in Durham, England. He came to the United States at the age of thirteen, and lived as a boy in Nevada, Iowa, where he completed his early education. He received his M. D. degree from Rush Medical College, Chicago, in 1892. He located in Ottumwa during the same year, and engaged in the practice of medicine, specializing in diseases of the eye, ear, nose and throat. He retired from active practice in 1941, after almost fifty years in continuous practice. During his medical career he visited various medical cen-

ters and took postgraduate work in New York City.

He was married November 3, 1886, to Miss Margaret Ringheim of Nevada, Iowa, who preceded him in death. Two children were born to them—Miss Hortense Hansell, who resides in Nevada, and a son, Dr. W. Whitefield Hansell, a practicing physician and surgeon of Des Moines.

Dr. Hansell died April 6, 1943, after a brief illness, at the age of eighty-eight years.

Dr. Evon Russell Walker was born in 1877 and died at his home in Ottumwa, May 17, 1943. He received his pre-medical education in the public schools in Oelwein and at Iowa State College in Ames. He received his M. D. degree from the medical department of the State University of Iowa, in 1905, and was graduated from the University of Illinois College of Medicine, Chicago, in 1908. He interned at the Robert Burns Hospital in Iowa City.

He came to Ottumwa, in 1923, from Sedalia, Missouri, where he had been in practice, and launched upon a successful career as a general practitioner. During the last few years of his career he concentrated his study upon diseases of the heart and became proficient as a cardiologist. He had returned from a Heart Clinic in Minneapolis a short time before his death.

During his affiliation with the Wapello County Medical Society he was one of its most consistent and conscientious supporters. He also took an active part in the Iowa State Medical Society, and was a member of the American Medical Association. Dr. Evon Walker was a sound business man, a good citizen, and a highly competent and conscientious doctor.

Dr. Walker was twice married. After the death of his first wife, he married Leota Montgomery, who survives him and resides in Ottumwa. He had no children.

(To be continued)

MINUTES OF MEETINGS

(Continued from page 369)

ing with special dietary requirements for certain diseases, to be used as a guide for doctors in requesting additional red points from OPA for patients; on endorsing the work of the National Small Business Men's Association (further opinion was sought); on the meeting to be held at Schick General Hospital in September; on a request from the Iowa chapter of the American Academy of Optometry for a speaker at its annual meeting (further opinions were requested); and on the future program of the Veterans Administration for outpatient care of veterans. (See page 370 for full details).

Meeting adjourned at four-thirty.

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

PHYSICAL DIAGNOSIS—By Ralph H. Major, M.D., Professor of Medicine, The University of Kansas, Kansas City, Kansas. Third edition, revised. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

THE 1944 YEAR BOOK OF INDUSTRIAL AND ORTHOPEDIC SURGERY—Edited by Charles F. Painter, M.D., Orthopedic Surgeon to the Massachusetts Women's Hospital and Beth Israel Hospital, Boston. The Year Book Publishers, Chicago, 1945. Price, \$3.00.

PENICILLIN THERAPY, Including Tyrothricin and Other Antibiotic Therapy—By John A. Kolmer, M.D., Professor of Medicine in the School of Medicine and the School of Dentistry, Temple University; Director of the Research Institute of Cutaneous Medicine; Formerly Professor of Pathology and Bacteriology, Graduate School of Medicine, University of Pennsylvania. D. Appleton-Century Company, New York, 1945. Price, \$5.00.

A MANUAL OF SURGICAL ANATOMY—Prepared under the Auspices of the Committee on Surgery of the Division of Medical Sciences of the National Research Council, by Tom Jones and W. C. Shepard. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

BEDSIDE CLINICS of Francis D. Murphy, M.D., Professor and Head of the Department of Medicine of the Marquette University Medical School and Clinical Director of the Milwaukee County General Hospital and Emergency Unit. Volume I. Marquette University Press, Milwaukee, 1945.

THE CARE OF THE NEUROSURGICAL PATIENT—By Ernest Sachs, M.D., Professor of Clinical Neurological Surgery, Washington University School of Medicine, St. Louis. The C. V. Mosby Company, St. Louis, 1945. Price, \$6.00.

FACIAL PROSTHESIS—By Arthur H. Bulbulian, M.S., D.D.S., F.A.C.D., Director, Museum of Hygiene and Medicine, The Mayo Foundation, Rochester, Minnesota. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

CLINICAL BIOCHEMISTRY—By Abraham Cantarow, M.D., Professor of Physiological Chemistry, Jefferson Medical College, formerly Associate Professor of Medicine, Jefferson Medical College, and Assistant Physician, Jefferson Hospital; and MAX TRUMPER, Ph.D., Lt. Comdr., H(S), U.S.N.R., Naval Medical Research Institute, National Naval Medical Center, Bethesda, Md., formerly in charge of the Laboratories of Biochemistry of the Jefferson Medical College and Hospital. Third edition, revised. W. B. Saunders Company, Philadelphia, 1945. Price, \$6.50.

BOOK REVIEWS

APPROVED LABORATORY TECHNIC

By John A. Kolmer, M. D., Professor of Medicine in the School of Medicine and the School of Dentistry, Temple University, Director of the Research Institute of Cutaneous Medicine, formerly Professor of Pathology and Bacteriology, Graduate School of Medicine, University of Pennsylvania; and FRED BOERNER, V.M.D., Associate Professor of Clinical Bacteriology, Graduate School of Medicine, and Assistant Professor of Bacteriology, School of Medicine, University of Pennsylvania, Bacteriologist, Graduate Hospital, Philadelphia. Fourth edition. D. Appleton-Century Company, New York, 1945. Price, \$10.00.

The first edition of this book was written to fulfill the object of the American Society of Clinical Pathologists in attempting to establish standards of performance for various laboratory procedures in clinical laboratories throughout the country. Since that time this book has been a standard reference work for clinical pathologists and laboratory technicians. The fourth edition has lived up to the high standard maintained previously and has brought up to date many of the older technics and has included a considerable number of newer procedures—those necessary because of newer developments in medicine and further experiences with older procedures. These include improved and new technics for the sulfa group of drugs, new technics useful in handling penicillin and other similar products.

The war has brought into much sharper focus problems of parasitology for those practicing in temperate zones. The fourth edition contains a great deal more information on malaria and para-

sitic diseases which may be encountered in returning soldiers. The section of the book on bacteriologic examinations has been revised and definitely improved by its reorganization.

Many new chemical tests have been added for control of liver function tests, specific gravity of blood, control of transfusion technic, and as further aid in differential diagnosis of pathologic conditions.

The book continues to be a high grade reference book for technical procedures in laboratory diagnosis.

H. W. M.

MEN UNDER STRESS

By Roy R. Grinker, Lieutenant Colonel, M.C., Army Air Forces, formerly Fellow of the Rockefeller Foundation and Chairman of the Department of Neuropsychiatry, Michael Reese Hospital, Chicago, and JOHN P. SPIEGEL, Major, M.C., Army Air Forces, formerly of the Department of Psychiatry, Michael Reese Hospital, Chicago. The Blakiston Company, Philadelphia, 1945. Price, \$5.00.

This is a very interesting book dealing with the experiences of two Army doctors who set up the first Army Air Forces convalescent hospital exclusively for "operational fatigue" in the United States. It records their experiences both overseas in an active theatre of war and with returnees suffering from war neuroses hospitalized for rehabilitation.

"Men Under Stress" is an analysis of what happens to human beings under the terrific strain of modern warfare and an explanation of the corrective treatments. It describes combat fear and many other types of neurotic disturbances and records 65 case histories in detail. The various corrective treatments are fully explained including the methods

by which drugs have been used in psychiatric treatment.

The presentation has been kept exceptionally free of scientific terms so that the book may be of service to anyone in military or civilian life who is interested in human beings under stress and the successful methods of treatment now available.

J. M. S.

CLINICAL TRAUMATIC SURGERY

By John J. Moorhead, M.D., formerly Professor of Clinical Surgery, New York Post-Graduate Medical School, Columbia University, and Executive Officer, Department of Traumatic Surgery, Post-Graduate Hospital and Reconstruction Hospital Unit; Colonel, Medical Corps (A.U.S.) Inac. Res.; Medical Director, New York City Transit System. W. B. Saunders Company, Philadelphia, 1945. Price, \$10.00.

This text is a most excellent guide for the traumatic or industrial surgeon. The field is covered completely. Of special value and interest is the final chapter dealing with war injuries and the author's experiences and results after the bombing of Pearl Harbor in December 1941. The author describes his foreign body "diviner" or locator, the first mass usage of which was on Jap Sunday and Monday 1941.

It is a very worthwhile volume compiled from the valuable personal experience of a meticulous surgeon and teacher.

J. P. C.

THE 1944 YEAR BOOK OF OBSTETRICS AND GYNECOLOGY

Edited by J. P. Greenhill, M. D., Professor of Gynecology, Cook County Graduate School of Medicine; Chairman, Department of Gynecology, Cook County Hospital; Attending Obstetrician and Gynecologist, Michael Reese Hospital; Associate Staff, Chicago Lying-In Hospital. The Year Book Publishers, Chicago, 1945. Price, \$3.00.

This Year Book contains reports and conclusions of many valuable research problems concerning obstetric and gynecologic medicine. Extremely interesting and informative chapters include variation of diets during pregnancy and labor, and new methods and drugs for producing obstetric analgesia. Demerol or pethidine, rectal sodium pentothal, and hypnosis are relatively new analgesic methods which bear thought and discussion, all of which seem promising in the near future.

There is much textbook information briefed in the large section on Labor, but pages devoted to cesarean section, its incidence, indications, and mortality are well worth reading carefully. The "Test of Labor" is more widely applied in the larger clinics in selected patients where minor disproportions exist, which seems to discourage early section hastily decided because of this disproportion. Mortality rates of cesarean sections have declined markedly,

perhaps due chiefly to the increased practice of the "extraperitoneal" type of section.

Erythroblastosis, so prominent in the thoughts of the obstetrician, the pediatrician, and the pathologist, is thoroughly discussed in the section on The Newborn. Many couples, heretofore advised of the plight in marriage of having blood groupings conducive of producing erythroblastosis in their offspring, now have better opportunities for the survival of their newborn through early diagnosis and blood transfusions.

Every practitioner will see many patients complaining of menstrual difficulties, and this often perplexes him in diagnosis and treatment because of the multiplicity of symptoms given him and therapeutic agents on the agenda for every phase and abnormality of the menstrual cycle. Much space and time have been devoted in the Year Book to the discussion of the efficacy of these drugs and their potentialities.

R. A. Y.

MEDICAL USES OF SOAP

Edited by Morris Fishbein, M. D. A symposium by RUDOLF L. BAER, M.D., Acting Associate Physician at Montefiore Hospital for Chronic Diseases; IRVIN H. BLANK, Ph.D., Visiting Research Fellow in Mycology, Harvard University; THEODORE CORNBLEET, M.D., Attending Dermatologist, Cook County and Mount Sinai Hospitals, Chicago; MORRIS FISHBEIN, M.D., Editor of *The Journal of the American Medical Association*, and of *Hygeia*; G. THOMAS HALBERSTADT, B.S.Ch.E., Proctor & Gamble Company; LESTER HOLLANDER, M.D., Chief of Service in Dermatology and Syphilology, Montefiore Hospital; DANIEL J. KOOYMAN, Ph.D., formerly Instructor in Applied Biochemistry in Medicine, Washington University School of Medicine; C. GUY LANE, M.D., Clinical Professor of Dermatology, Harvard University; CAREY McCORD, M.D., Medical Adviser, Chrysler Corporation; MARION B. SULZBERGER, M. D., Assistant Attending Physician, New York Postgraduate Hospital. J. P. Lippincott Company, Philadelphia, 1945. Price, \$3.00.

This volume comprises a collection of articles written by various authors, each of whom is familiar with the particular phase of the subject which he discusses. Much of the text has to do with the chemical processes involved in the manufacture of soaps and other technical data which are likely to be of little interest to the average practitioner.

The chapters contributed by Sulzberger and Baer give a thorough understanding of the effects of soap on normal and diseased skin. The chapter by Cornbleet tells of the various types of shampoos in relation to care of the scalp and hair. There is also a good article by Lane dealing with soap substitutes.

This book contains much good information for those giving advice on care of the skin. J. W. Y.

SOCIETY PROCEEDINGS

Bremer County

Four Bremer County physicians who have practiced medicine a half century were honored at a recent meeting of the Bremer County Medical Society. The four doctors receiving their Fifty Year Club pins and letters were Dr. William L. Whitmire of Sumner and Drs. Charles H. Graening, Lester C. Kern, and Robert E. Robinson of Waverly.

Hardin County

The Hardin County Medical Society met in Iowa Falls Tuesday evening, July 31, at the Princess Cafe. The guest speaker of the evening was Major Edward L. Rohlf, Jr., M.C., who told of his experiences in the European Theater of Operations.

W. E. Marsh, M. D., Secretary

Louisa County

Members of the Louisa County Medical Society and their wives had a potluck dinner Thursday evening, August 9, at the home of Dr. and Mrs. Thomas L. Eland of Letts. The evening was spent socially.

Poweshiek County

A special meeting of the Poweshiek County Medical Society will be held at the Community Hospital in Grinnell Tuesday, September 4, at 7:30 p.m. Miss Kathleen Christine, Community Hospital technician, has completed the special course on tropical diseases at the University Hospitals and, through the courtesy of Dr. Irving H. Borts, will give a demonstration of malarial slides, staining technic, and also show amebic parasites.

The October meeting of the Society will be held in Montezuma Tuesday evening, October 9, at which time Dr. Theodore V. Niemann of Brooklyn, who recently received a discharge from the Army Medical Corps, will tell of his experiences in the Pacific.

C. E. Harris, M. D., Secretary

Upper Des Moines Medical Society

The summer meeting of the Upper Des Moines Medical Society was held in the Templar Park Hotel at Spirit Lake Thursday afternoon, August 16. The program was comprised of physicians from the State University of Iowa College of Medicine. Theodore J. Greteman, M.D., of the Orthopedic Department spoke on Some Observations Concerning the Poliomyelitis Controversy, and also Low Back Pain; Robert L. Jackson, M.D., of the Department of Pediatrics discussed Nutrition in Children, and also Diabetes in Children; and Charles B. McIntosh, M.D., of the Department of Pediatrics talked on Methods of Examinations of Children.

Ruth Wolcott, M. D., Secretary

PERSONAL MENTION

Lt. Colonel Leonard J. Hospodarsky, M.C., of Ridgeway, has been awarded the Bronze Star Medal for meritorious service in connection with military operations from January 1944 to May 1945 with the IX Engineer Command in the European Theater. The citation accompanying the award states, "Lt. Col. Hospodarsky's efforts produced eloquent evidence in the form of complete absence of communicable disease epidemics on the continent, the low hospital rate and the excellent general physical condition of the personnel of the command." At periods the personnel of the aviation-engineer organization numbered upwards of 20,000 men and officers.

Lt. Colonel Clyde B. Meffert, M.C., of Cedar Rapids, has been cited for the Legion of Merit. The citation reads, "For exceptionally meritorious conduct in the performance of outstanding services as chief of surgical service, 109th Evacuation Hospital, Third U. S. Army, from April 7, 1944, to January 28, 1945. Lt. Col. Meffert exhibited an unusually high degree of professional skill and exceptional administrative and organizational abilities in the fulfillment of his task. His performance of service made it possible for this organization, with only one week of unit training and two weeks of actual maneuvering, to establish an efficiently functioning hospital. Through Lt. Col. Meffert's untiring efforts this superior surgical service was maintained throughout operations." Colonel Meffert recently returned from Europe and has been on leave at his home in Cedar Rapids.

Major Vance J. Elliott, M.C., of Knoxville, has been awarded the Bronze Star Medal "For meritorious achievement in the performance of outstanding services from March 1944 to May 1945 as group surgeon of a heavy bombardment group. Major Elliott has, through diligent and untiring effort, been successful in administering the station hospital so that, from the first, it has been considered a model of its kind and he has consistently maintained one of the lowest non-effective rates of flying personnel and has been a contributing factor in the combat efficiency of his group. Major Elliott designed a collapsible evacuation airplane litter that enjoyed immediate success and has been instrumental in saving the lives of many men. Major Elliott has shown outstanding ability as a leader and has considerably contributed to the morale of his group and to the medical operations of the Army Air Forces." Major Elliott returned from Europe the latter part of July and spent his thirty day leave with his family in Knoxville.

The following physicians have been released from active military duty:

Dr. Laurence C. Hanson was recently discharged and has resumed his practice in Jefferson. Dr. Hanson served as a Captain in the Army Medical Corps.

Colonel Glenn E. Harrison, M.C., of Mason City, has recently returned from three years of overseas duty and will resume his position as a member of the staff of Park Hospital in Mason City on September 1. Colonel Harrison will be on terminal leave until December 17.

Dr. Frederick L. Nelson, Jr., has received his discharge and has returned to Ottumwa to resume his practice of medicine. Dr. Nelson, who spent more than three years in military service, was a Captain in the Army Medical Corps.

Dr. Theodore V. Niemann has received an honorable discharge and will soon resume his practice of medicine in Brooklyn. Dr. Niemann, who served as a Captain in the Medical Corps of the 43rd Infantry Division, spent thirty-four months in the South Pacific.

Dr. Lawrence G. Schaeferle, who has been with the armed forces in Europe, has received his discharge and returned to Gladbrook to resume his practice. Dr. Schaeferle was a Captain in the Army Medical Corps at the time of his release.

Dr. John E. Sinning, who practiced in Melbourne for several years before entering military service, has now been discharged and has opened an office in Marshalltown in the Masonic Temple Building. Dr. Sinning, who spent thirty-five months in service, was a Captain in the Army Medical Corps at the time of his release.

Dr. Benjamin D. Van Werden has recently been discharged and plans to resume his practice of medicine in Keokuk. Dr. Van Werden was a Captain in the Army Medical Corps at the time of his release.

Dr. Joyce Perrin has been named psychiatrist at the Veterans Administration Facility in Des Moines. She is the first woman psychiatrist to be appointed to the hospital staff, and at present is working part time. She has also established an office in the Equitable Building. Before coming to Des Moines, Dr. Perrin was on the staff of the Neurological Institute in New York City.

Dr. R. Parker Noble, who was released from the Army Medical Corps last November, has opened an office in Alta for the general practice of medicine. Dr. Noble had been located in Cherokee for several years prior to entering military service, and since his return had been associated with Dr. James H. Wise of that city.

Dr. Clarence E. Van Epps has retired from administrative duties as Head of the Neurology Department in the State University of Iowa College of Medicine after twenty-six years of service in that position. He will continue his work in the College on a part-time basis.

MARRIAGE

Miss Jeannette Seibert and **Dr. Frank W. Fordyce**, both of Des Moines, were united in marriage at 1:00 p. m. Wednesday, August 15, in the chapel at Central Presbyterian Church in Des Moines. The couple is at home in the Wetherell Apartments, 4024 Grand Avenue. Dr. Fordyce has been engaged in the practice of medicine in Des Moines for several years.

DEATH NOTICES

Chamberlain, Lowell Holbrook, of Des Moines, aged sixty-eight, died July 22 of burns complicated by a heart condition. He was graduated in 1900 from Jefferson Medical College of Philadelphia, and at the time of his death was a member of the Polk County and Iowa State Medical Societies.

Holbrook, Francis Roderick, of Des Moines, aged sixty-four, died July 25 after an illness of several months. He was graduated in 1904 from the University of Pennsylvania School of Medicine, and at the time of his death was a member of the Polk County and Iowa State Medical Societies.

Sokol, John Morrison, of Spencer, aged sixty-nine, died suddenly July 22 of a heart attack. He was graduated in 1902 from Rush Medical College, and at the time of his death was a member of the Clay County and Iowa State Medical Societies.

Thompson, Ira Farwell, of Donnellson, aged seventy-one, died August 1 following an illness of several months. He was graduated in 1902 from Keokuk Medical College, College of Physicians and Surgeons, and had long been a member of the Lee County and Iowa State Medical Societies.

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SOME CLINICAL CONSIDERATIONS ABOUT THE SO-CALLED BLACK- WATER FEVER SYNDROME

RICARDO CASTANEDA, M.D., Iowa City

Before describing a few practical viewpoints in regard to the blackwater fever problem I feel obliged to explain why a person, who is training to become an obstetrician and gynecologist, has the courage to write concerning such a complicated matter, which here does not seem related to obstetrics and gynecology. I was on the staff of the United Fruit Company Hospital at Quiriguá (Guatemala) under Dr. N. P. Macphail for several years. This 200 bed hospital is located in the heart of the malarial district and is primarily designed for the treatment of malaria. While there I was responsible for the treatment and care of thousands of patients with malaria and its attendant complications. Because of this experience with malaria and blackwater fever, Dr. H. M. Korn's graciously asked me to prepare this paper. I am presenting my personal clinical impressions of the syndrome rather than a detailed review of the literature.

The term blackwater fever suggests that this symptom-complex is a distinct entity rather than a complication of malaria. Despite the fact that it has been well known to the medical profession for many hundred years, although not by this name, it is still an obscure medical problem. We know that blackwater fever is in some way related to the malaria plasmodium, particularly to the *Plasmodium falciparum*. Many theories have been devised in an attempt to bring some light upon the darkness of blackwater fever, miasma, specific organisms (such as the spirochetes described by Castellani, Schüffler, et al.), drug reactions (quinine, arsenic, etc.) have been impli-

cated—as causal factors. Each of these hypotheses has been proposed without clinical or experimental evidence to substantiate its connection with blackwater fever and has subsequently been discarded. Like many other medical problems, the large number of theories and hypotheses proves our ignorance of the subject.

I consider the term "blackwater fever" very poor because it does not correspond to the clinical picture. In the first place, so-called blackwater fever does not show a black urine, as the name suggests. The color varies from bright red to intense dark red (like chianti wine) according to the degree of hemolysis and the functional ability of the kidneys to excrete very concentrated urine, or a large amount of less concentrated urine. I believe, of course, that the color and amount of urine are closely related to the patient's general condition (hemolysis, previous kidney damage, etc.), and especially to the present secretory ability of the kidneys, which finally determines the prognosis in each case. A second objection to the term "blackwater fever" is that, although most patients show a fever of 103 to 106 degrees with corresponding tachycardia, chills, slight to severe jaundice, "hippocratic facies," and hypotension at the onset of the complication, there are others—and certainly those in the most danger—who have either no fever or an extreme hypothermia. Hence, I would suggest the term "malarial icterohemoglobinuric syndrome" instead of blackwater fever or "bilious-hemoglobinuric fever," a term which is also commonly used. There are similar icterohemoglobinuric conditions, like paroxysmal hemoglobinuria, nocturnal paroxysmal hemoglobinuria, favism (allergic), infectious hemoglobinuria, and familial hemolytic jaundice. The observation that only a few among the enormous number of malarial patients develop blackwater fever, and the fact that the syndrome appears also in members of the same family, leads one to believe that in the etiopathology of blackwater fever the following empirical observations probably play important rôles:

From the Department of Obstetrics and Gynecology, College of Medicine, State University of Iowa.

Prepared for presentation before the Ninety-Fourth Annual Session, Iowa State Medical Society, Des Moines, April 18 and 19, 1945, canceled upon request of the Office of Defense Transportation.

1. Blackwater fever appears only in patients suffering from acute infection or reinfection with malaria.

2. Estivo-autumnal malaria (*falciparum* type) seems to be the most common form, although it was difficult or impossible to find the parasites in the peripheral or central blood even in typical and severe cases. This is probably due to:

- a. The profound anemia and consequently decreased number of red cells for examination.
- b. The difficulty in recognizing the organisms because of the large amount of cell detritus and pigments in the smear.
- c. Not enough series of smears in the same patient.
- d. Previous antimalarial therapy.

This would be a very fascinating and open field for an enthusiastic, well-trained and well-equipped hematologist.

3. Fatigue, alcoholism, poor nourishment, and poor resistance to the infection are important.

4. Incorrect dosage and irregularity in the administration of antimalarial drugs should also be listed as cofactors. Although I accept the existence of so-called quinine hemoglobinuria, I believe (as with plasmochin, atabrine, aspirin, intercurrent infections, etc.) the drug is nothing more than a precipitating factor. It is not the cause of blackwater fever. Quinine hemoglobinuria is well known in the tropical medical world. Usually the clinical course of drug hemoglobinuria in malarial patients is not nearly so treacherous as is the real blackwater fever. The differentiation between drug hemoglobinuria and blackwater fever is difficult because the latter appears only in zones infected with malaria, where quinine, atabrine, and plasmodochin are commonly administered. It would be very unusual to see a patient with blackwater fever who has not previously received some of these drugs.

My personal opinion about the malarial ictero-hemoglobinuric syndrome, or blackwater fever, is as follows: blackwater fever is closely related with infection by the malarial plasmodium and the aforementioned cofactors are important as precipitating conditions, but the main element in the unknown mechanism of the physiopathology of blackwater fever is the constitutional, individual factor. Otherwise, what is the explanation of the common observation in blackwater fever zones that no matter how poor or rich, how strong or weak a patient may be, suddenly, out of the clear sky blackwater fever develops, whereas the rest of the people under the same conditions do not develop it? Furthermore, what explains the fact that certain patients have repeated attacks of blackwater fever whereas other patients with

recurrent attacks of malaria never develop blackwater fever? I have seen patients with three or four relapses of blackwater fever. The disease will ultimately prove fatal unless the patient leaves the malarial zone. These are empiric observations, which lead me to believe that some constitutional factor, plus the presence of plasmodia and the previously mentioned exogenic cofactors, are largely responsible for the malarial ictero-hemoglobinuric syndrome, or blackwater fever.

Blackwater fever appears at any time during the year. The cases seem to appear in groups during the year, but this could be explained—among other factors—by periodic changes in laborers in these zones, causing more chances of infections and new possibilities for some kind of incompatibility between plasmodium and the human organism.

So much for the theoretic consideration in regard to blackwater fever.

SYMPTOMATOLOGY OF BLACKWATER FEVER

A typical case of blackwater fever shows the following clinical features:

1. The most striking manifestation and the immediate reason for the patient seeking medical aid is the fact that he "urinates blood." In general, there is only hemoglobinuria, but occasionally hematuria also appears.

2. Chills and fever are usual, although hypothermia may occur in some cases.

3. Extreme weakness results from the severe anemia. The skin and mucosa are pale and usually jaundiced. The skin in some cases is cold and dry; this is a bad prognostic sign. In other cases there is profuse perspiration occurring with either a cold or warm skin; this is a more hopeful sign.

4. The urinary output is variable. Oliguria may occur and is ominous, although the prognosis is good if the output increases. If the patient is in the "anuretic stage" for more than seventy-two hours without improving, despite therapeutic measures, the prognosis is invariably fatal.

5. Mild or severe jaundice occurs, the depth depending on the amount of hemolysis, the length of time the patient has been suffering from blackwater fever and on the severity of the liver cell damage.

6. Regardless of the severity of illness, a blackwater fever patient will never lose consciousness unless he is moribund or has reached the "uremic stage." One can ask him questions and he will answer them normally.

7. Nausea and persistent vomiting are common. The patient becomes fatigued and dehydrated. Dark green or dark brown vomitus indicates a bad

prognosis. This vomitus resembles the so-called black vomitus of yellow fever, according to physicians who have seen both diseases. There is increased sensitivity of the liver upon palpation.

8. Singultus (hiccough) is another ominous and common complication which is resistant to treatment (toxic-cerebral in origin?).

9. Some patients have diarrhea, others are constipated. The stools are very dark; at times like the enterocolitis type (malarial gastro-enterocolitis is a very serious type of malaria).

10. There is anorexia.

11. Hypotension is common.

TREATMENT OF BLACKWATER FEVER

In view of the fact that the etiology and physiopathology of blackwater fever are unknown, this therapy is symptomatic.

Secondary shock is treated by physiologic saline solution, 5 to 50 per cent dextrose (depending upon the urine output), blood transfusions, cardiac tonics (ephedrine, adrenalin, caffeine, etc.). We can also give the patients liver extract, large amounts of vitamin C, B-Complex, and calcium, which may be of some value. Sedation of the patient with barbiturates (such as sodium amytal, phenobarbital, etc.) is important. At Quiriguá Hospital in Guatemala, C. A., it was impossible to treat patients with transfusion or blood plasma due to lack of donors and of well organized blood banks, and the scarcity of nonmalarial donors.

As soon as the patient is over the acute stage, the urinary output increases, the hemoglobinuria disappears, the blood pressure becomes normal, and the patient tolerates fluids by mouth. Alkaline solutions should then be given as well as plain cold water and eventually hot tea and coffee. This liquid diet is continued for at least forty-eight to seventy-two or more hours. Alkaline solutions, fruit juices, fruits, gelatin, cereals, milk (if tolerated) should be administered for seven or more days, altering or increasing the amounts depending upon the individual case. A soft or general diet started too early in a blackwater fever patient does more harm than good and will invariably precipitate a relapse.

"Watch the diet of your blackwater fever patients and you will save lives when dealing with such a serious malarial complication," according to thirty-four years of experience at Quiriguá Hospital.

The treatment of blackwater fever anuria is most important but quite unsuccessful. Having tried all the common diuretics, hypertonic dextrose solutions, diaphoretics, and diathermy to the kidneys, it is my feeling that we do not yet have adequate therapy for the condition. Since the

prognosis is so ominous, we should possibly attempt renal decapsulation, despite the patient's poor general condition.

We have purposely mentioned no antimalarial treatment, feeling that quinine or atabrine should not be used during the acute stage of blackwater fever. Quinine and atabrine in small doses have been used, but relapses occurred after the use of such drugs. This is the reason for our efforts to use some kind of desensitization after the acute stage, starting with quinine sulfate, grains 0.5, by mouth daily, increasing the dosage grains 0.5 every day until grains 15 twice a day are tolerated. If the patient shows any reaction (hemoglobinuria, chills, etc.), the drug should be discontinued. Thereafter, the patient receives good general care and complete antimalarial treatment with quinine, atabrine and plasmochin. (Incidentally, toxic manifestations never occurred after a combined or separate administration of atabrine and plasmochin or quinine and plasmochin even in very anemic and undernourished malarial patients.) The patient should be on bed rest until complete recovery (usually three to six weeks), under nursing and orderly care, and doctor's supervision to avoid dietary errors.

A convalescent blackwater fever patient has a ravenous appetite and, providing his therapeutic diet has been carried out properly, will show no signs of malnutrition. It is advisable for the patient to leave the malarial zone permanently in favor of a better environment.

SUMMARY

In order to develop blackwater fever three requisites are necessary:

- 1. An unknown individual, constitutional, or endogenic factor.
- 2. The presence of malarial infection (particularly with *Plasmodium falciparum*).
- 3. Exogenic cofactors.

The reasons for objection to the terms "blackwater fever" and "bilious hemoglobinuric fever" were discussed, and the term "malarial ictero-hemoglobinuric syndrome" was suggested.

The symptomatology and therapy of blackwater fever were outlined.

It is my feeling that, in support of the efforts of the few pioneer investigators in our Central American malarial zones, a more thorough investigation of blackwater fever should be organized with well equipped laboratories, independent of other interests and under the leadership of university people. Only thus will it be possible to study more rationally such tropical problems as blackwater fever. "Armchair" investigation might be important, but the direct contact with patients is more essential.

REHABILITATION OF THE DEAF AND BLIND

CHARLES E. CHENOWETH, M.D., Mason City

To rehabilitate an individual is to render a service which may enable the disabled fit to engage in remunerative occupations, to effect the placement of such individuals in suitable employment, and to investigate and supervise such placements pending assurance that they are successful.

In 1920 the Federal Government passed the National Civilian Vocational Rehabilitation Act, which last summer was amended by Congress to provide for forms of physical restoration other than prosthesis.

To be eligible for physical restoration under the new program the individual's disability must be:

1. An employment handicap.
2. Static (relatively stable).

3. Remedial by treatment which is limited to ninety days of hospitalization and to a "reasonable period" of treatment as an ambulatory patient.

The word "static" differentiates the program from a general medical care program caring for acute illnesses. Also, long-term chronic cases are not eligible because the objective must be one which can be reached within a reasonable length of time.

Physical restoration includes medical diagnosis, medical, surgical, and psychiatric treatment, hospitalization, medical social service, physical therapy, occupational therapy, bibliotherapy, and prosthetic appliances—all skills which are required for the physical or mental restoration of the disabled.

In this state we cooperate with the Federal Government through the Rehabilitation Division of the Board for Vocational Education under the chairmanship of Jesse M. Parker and the Directorship of Willis W. Grant and his assistant, Howard L. Benshoof, along with Field Consultant Paul O. Hamilton, and a professional staff of six case workers. No doubt all of you have received their 1944 report accompanied by a letter of explanation from Mr. Grant.

We can, I think, truthfully say that one hundred years ago the only occupation open to the blind was begging. Today there are 214 known, economically feasible, employment opportunities open to the blind who meet the following prerequisites of eligibility for employment:

1. Physical fitness except for blindness.
2. The innate and developed abilities of the candidate along specific and practicable lines.

3. The ambition, desire, and enthusiasm for work.

4. The ability of the candidate to get along well with his seeing fellowmen.

5. Virtual independence in traveling.

A study based on the data obtained from 256 organizations in the United States, employing 1,084 blind persons, indicates that when the aforementioned five factors are given proper consideration, the blind can and do compete with the seeing in speed, accuracy, and efficiency. (This information was supplied by the Pennsylvania Institution for the Instruction of the Blind who have tabulated the employment opportunities that are now held by physically capable, legally blind, persons in the United States.)

When we consider that in these United States there are approximately 2,500,000 blind individuals and there are said to be 3,000,000 children of school age in the United States with defective hearing, and that in every thousand persons we find one deaf and twelve hard of hearing, I believe you will all agree on the necessity of a rehabilitation program. It seems trite to think that it takes war to awaken man, yet more progress in rehabilitation has been made due to World War I, and now World War II, than had been made in centuries past.

Following World War I there was an effort at rehabilitation for the blind made at General Hospital No. 7 located on the outskirts of Baltimore, and in England St. Dunstan's was soon founded by Sir Ian Fraser who was blinded in the war and who has presided over it ever since. For the deaf there was U. S. General Hospital No. 11 at Cape May, New Jersey, under Major John M. Ingersoll and sponsored, we might say, by Colonel Harris P. Mosher, who was head of the Ear, Nose and Throat Department in the Office of the Surgeon General, and assisted by Lt. Colonel Charles W. Richardson.

In reviewing the work done at General Hospital No. 7 and at St. Dunstan's we learn from Sir Ian Fraser that the fear of blindness is the worst part of eye injuries. It is an economic fear and a fear of loneliness and dependence. To avoid this reaction anyone whose eyes are seriously damaged should be sent at once to one of the special training centers where they will associate with others who have overcome the handicap of blindness incurred at an earlier date. Here the previously blinded act as instructors in braille, type-writing, shorthand, massage, joinery, and other handicrafts. Living in a world of the blind, the newcomers soon begin to concentrate on things they can do and forget the things they cannot do.

At General Hospital No. 7 a total of 117 pa-

tients had been treated when the hospital was turned over to the Red Cross and operated as the Evergreen School for the Blind, and during its existence a total of about 400 patients were cared for in this institution. In telling its story, Dr. Alan C. Woods² states that the usual course of instruction consisted of a preparatory course comprised of braille, English, typewriting, and hand writing. Thereafter the student entered one or another of the vocational courses until it was determined for which one he was best fitted.

In the selected field he received instruction until it was felt he was prepared for civilian life at home, in the blind shop, in industry or agriculture, or was prepared to enter some university or professional school for special training. The vocational courses consisted of agriculture including poultry raising and dairy farming, commerce including storekeeping, industry including auto shop repairing, vulcanizing, cigar manufacturing, novelty work, weaving, wood working, and tire repairing. "Avocational" courses in life insurance, book binding, basket making, and weaving were given. Abundant recreational facilities were available—music, dances, public speaking and the like—in addition to bowling alleys and a swimming pool.

At Cape May during 1918-1919, 108 deafened soldiers received systematic training in lip reading and speech correction before they were discharged into civilian life. The average time for completing the lip reading course was 2.7 months and 74 per cent were graded as understanding 80 per cent of what their teachers said to them in their efficiency tests. Then Miss Enfield Joiner, who succeeded Dr. Manning as head of the school, consented to go to Washington for yet another year as the Federal Board Agent concerned with finding and taking care of those who did not find their way to Cape May. She discovered 500 more of these handicapped men and secured for them the civilian lip reading teachers they needed.

Our present war has given a new impetus for a rehabilitation program and today it seems proper that you should know not only what is being done for those in our armed forces, but what may be done for those so afflicted in your own practice.

There are five established hospitals in our country at present for those handicapped by these afflictions, two for the blind and three for the deaf. For the blind there is the Dibble General Hospital at Menlo Park, California, and Valley Forge General Hospital at Phoenixville, Pennsylvania. For the deafened there are centers at Deshon General Hospital, Butler, Pennsylvania; Borden General Hospital, Chickasha, Oklahoma;

and Hoff General Hospital, Santa Barbara, California.

Due to the importance of contacting the blinded soldier early in order to encourage him and keep him looking hopefully forward to the prospect of a full and useful life, specially trained personnel are necessary. A consultant, who has been blinded in this war and is well adjusted to his own handicap, is dispatched to the first hospital of residence of a newly blinded casualty in order to provide psychologic and emotional support. The blind consultant also arranges a temporary training program to bridge the period of time until the newly blinded soldier may be safely sent to one of the two special centers. Should this casualty happen in the European area, arrangements have been made so that he is sent to St. Dunstan's while awaiting passage home, and here he receives active training which allows him to come home with more confidence and courage.

To go into the detail of their training is beyond the scope of this paper, but should anyone desire he may find an interesting account in the August 1944 issue of the *American Journal of Nursing*, under the title of "Fearless Eyes," by Dorothy Deming, R.N. In brief, it can be said that at the hospital designated for the care of the blind, the soldier is taught how to dress and shave, how to feed and care for himself. He is taught to use a typewriter, to write, and how to tell the time of day with a braille watch. The Talking Book (Victrola records) opens to him the world of literature even before he learns to read braille. Radios, which are made available, offer much enjoyment. He is taught the braille method of reading and writing, and those who enjoy reading are encouraged to extend their study of braille.

There, teachers whose eyes have not been injured insure neatness of dress and good posture. Occupational therapists teach them to use their hands, to develop new perceptual skills and manual dexterity, and thus assist in restoring confidence through useful work. When the patient has learned to get about readily, he is encouraged to enlarge his social contacts, visit the city, go to concerts, and get about in the world among his friends. There is much interest in the matter of guide dogs; the public generally has the idea that every blinded person should have one. Experience shows, however, that only about 10 per cent of the blind can use dogs advantageously. Many blinded soldiers will develop the ability to get about with a minimum of assistance. With a skillfully used cane they are inconspicuous and unencumbered. It is important to have determined the type of work to be done and whether a guide dog will be practicable and compatible with the

future choice of job. Following the initial training, the direction of schooling depends greatly on a patient's native ability, intelligence, and past education. If a patient has been a professional man, his training is in that direction. If he has been a farmer, rehabilitation is in the manual field. Our government will send any blind man through college who is able to qualify. The base pension for the blinded veteran is \$175.00 a month.

The objectives for rehabilitation of the deaf in our Army hospitals have been stated by Capt. Truex⁴ as:

1. To make an accurate diagnosis of the existing maladies by taking a complete history and by doing careful clinical and laboratory examinations.

2. To institute local and general therapeutic measures designed to improve or cure abnormalities that are discovered.

3. To give intensive instruction in the art of lip reading.

4. To supply each individual with the best available hearing aid for his particular loss, provided sufficient measurable benefit warrants the use of such an instrument.

5. To teach the patient to whom an aid is given how to use that aid to his maximum advantage in conjunction with his residual hearing and his proficiency in reading lips.

6. To prevent and correct deterioration in speech which may quickly jeopardize satisfactory social and economic adjustment.

7. To assist the victim in avoiding the pitfalls of seclusion and introversion, of mental and emotional aberrations that so frequently stalk in the wake of his handicap.

8. To assist those who are unfit for further military service in continuing rehabilitative measures, if necessary, and in assuming their places in society as normal useful citizens.

Thus we find these handicapped cared for not only by the otologist but by the psychologist, teacher in lip reading, teacher in speech correction, physical therapist and vocational guide.

In considering those found in your own practice, we have a similar, yet different, problem in that you must deal with a different age, some being congenital defects, others acquired at either extreme of life, and comparatively few in the age group of our armed forces.

First, those legally considered blind in our state are those who have no vision or whose vision with corrective glasses is so defective that it prevents the performance of ordinary activities for which eyesight is essential. For them we have our State School for the Blind at Vinton where they may receive an education and training in various fields

of activity. There is, however, a responsibility far more important than advising training, which you as the family physician must accept. That is the prevention of this handicap. To do this every prospective mother who seeks your advice should be carefully examined for any disease which may lead to blindness of her child, especially gonorrhea and syphilis which, I believe, will be found to account for about one-fourth of the population in our blind schools throughout the country. Both of these causes we might say are preventable. Other factors, such as consanguinity, and hereditary tendencies such as congenital cataract and retinitis pigmentosa, when known, should lead you to advise against pregnancy.

There is another group of persons who cannot be classified as blind and yet they are seriously handicapped in our modern school system because of visual deficiency. A child in this category deserves our most kind consideration for his pitfalls are many and few understand his handicap. Without careful guidance he may soon develop an inferiority complex. Should your vision have been defective and you did not know it, would you not consider everyone the same? So it is with such a child, and when he cannot attain the same proficiency as his classmates, he soon feels something is lacking in himself. To aid this youngster your first duty is to refer him to a competent eye physician for diagnosis and treatment, if warranted. Following this you should be fully informed regarding the disability and receive recommendations which you could convey to the parents and teachers so that the child might be afforded a better opportunity. In our large cities many schools have special sight-saving classes which, of course, are not found in our section of the country. We can, however, advise so that the child may be placed in a position where he may see, and later with a little tact suggest some vocations that do not require keen vision. Recently our State School at Vinton has offered courses for the visually handicapped.

Finally, let us consider the deaf or hard of hearing patient—one whose handicap has been sadly neglected. It has been my observation since my intern years that considering the two handicaps, blindness and deafness, the blind are the happier of the two. This is not in accord with public opinion, I know, but nevertheless I believe it true. The tragedy of blindness is widely recognized because the disabilities of blindness are frequently brought home to us when we find ourselves in darkness. Deafness strikes no such cords of sympathy; yet deafness is isolation and utter loneliness in a large world, the joy of which springs from social contact. Again, deafness in many instances is an even greater handicap be-

cause the inability to hear frequently results in inability to comprehend. The deaf, much more than the blind, are thrown on their own resources. They stand isolated while the blind join in the melee of life. To them is lost the most vital stimulus, the sound of the spoken voice, which brings language, sets thoughts astir, and keeps us in the intellectual company of our neighbors.

Children are normal social beings—they receive biologic sustenance from gregarious living. When the deaf child finds he can no longer communicate with or understand his companions, is it any wonder that he feels isolated, that he is depressed, that he feels persecuted?

That hearing and speech are important in the normal development of a child may be seen when we compare the deaf with the hearing child between the ages of two and seven years. It will be found that the deaf child is at a standstill, while the hearing child is developing rapidly. Every moment of his awakening life he receives of education through his hearing, so that not only are speech and language being continually impressed upon his cerebral centers, but by ceaseless reiteration they are stored up as sensory and motor memories. Thus, the language appreciating and language producing centers being intimately related, speech becomes automatic before education of the centers concerned with writing and more difficult language training begins, centers of later development in the history of the race than those of mere speech, and preceded in the normal child by a prespeech era of gesture language. It is this prespeech era which becomes more fixed and consequently easier of use in the deaf child to the detriment of oral training. Automatic speech is of high importance, and the training of the speech center in those children who become deaf at an early age would help them to approach the normal child's automatism.

In speaking of those with defective hearing, Dr. George Shambaugh states that they are forever at the end of a very bad telephone line. Considering what should be done for them, our first duty is prevention of those diseases which produce deafness. It may be beyond the resources of modern epidemiology to stamp out nasopharyngeal infections and the infectious diseases, but much has been done and more will be done. Proper prenatal care may prove more beneficial than is at present predicted in the development of the fetus. The congenital deafness which occurs intra-uterine may result from consanguinous marriage, intermarriage of congenitally deaf people, syphilis, intra-uterine injury, or use of drugs by the parents, particularly the mother, including alcohol and tobacco. Immunization against diseases for

which we have immunizing agents and which predispose to middle ear infections—namely, whooping cough, scarlet fever, diphtheria, measles and smallpox—will accomplish much. Add to these the early diagnosis of communicable diseases and the prompt administration of antitoxins, vaccines, antisera and convalescent sera, and in many more instances will these dire complications, which are so frequently more serious than the disease itself, be prevented. Other factors, such as adenoids and wax accumulation, I am sure need no elaboration.

Having a deaf child for whom we have carried out all possible measures, how are we to advise as to his rehabilitation? According to the amount of loss, together with the child's intellect and in conformity with accommodations available, a definite plan of help should be outlined. A simple outline, proposed by Kerridge, appeared in a recent article by Nash in which he classed them in groups: Group A, those hearing conversational voice no further than twenty feet should have a favorable seat in a regular school; Group B, those who hear conversational voice at less than twenty feet but more than two feet should attend a special class for the acoustically handicapped in a regular school; Group C, those who hear conversational voice at two feet or less should be in full attendance in a school for the deaf. O'Connor in the same article classifies more in detail:

1. Children with 20 decibel loss require a favorable seat in regular school.

2. Those with 20 to 30 decibel loss may require some instruction in lip reading.

3. Those with 30 to 40 decibel loss require a favorable seat, hearing aid, speech correction, and speech tutoring.

4. Those with 40 to 50 decibel loss require in addition partial attendance in a special class in a regular school.

5. Those with 50 to 60 decibel loss require full attendance in a special class in a regular school, full attendance at a special school for acoustically handicapped, or full attendance at a residential school for the deaf.

6. Those with 60 to 100 decibel loss require full attendance in a special class in a regular school or full attendance at a residential school for the deaf.

I realize that in the allotted time I have been able only to scratch the surface, and for those who desire they may find a more complete study in the appended bibliography. Recently there came to my desk a pamphlet published by the Automotive Council for War Production under the title "Rehabilitation Programs Enable Handicapped to Fill Essential Jobs in Automotive

Plants." I note that they employ 687 who are sightless in some degree, including 40 who are totally blind and 68 deaf-mutes. In the eyes of automotive industry rehabilitation experts, there are no "disabled men" and no jobs are "created" for the handicapped, of which they employ a total of 11,300 workers.

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THE TUMOR CLINIC

ITS FUNCTION, ORGANIZATION AND OPERATION

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DEFINITION

The Tumor Clinic is an organized effort to bring to every individual who has or suspects he has cancer the advantage of the composite medical judgment of the community in scientific diagnosis and treatment, at the same time enabling both the participating physicians and the medical profession in the area to acquire, by interchange of ideas and increased clinical experience, knowledge and skills that will redound to their own advantage and that of the public.

While the prime purpose of the organization is the detection, prevention and treatment of cancer, for psychologic reasons it has been deemed best to avoid reference to malignancy in the name. The clinic is most efficient when it admits many patients whose cases are ultimately diagnosed as nonmalignant. Such a diagnosis is just as important to the patient and is an indication that the clinic is seeing precancerous or early lesions. Ambulatory treatment of such patients is far more economical and successful than hospitalization in advanced, often hopeless, cases.

PURPOSE

Cancer is a protean disease occurring in almost any organ or tissue of the body. No individual,

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regardless of his professional qualifications, can hope to recognize it in its every manifestation. Even if the diagnosis is clear, the matter of proper treatment is still one requiring studied judgment in which the opinion of both the surgeon and the radiologist are important. Both prognosis and therapy are often dependent upon the histologic character of the neoplasm. The laboratory, and particularly a competent pathologist, is of prime importance both to accurate diagnosis and proper treatment recommendations.

Tissue diagnosis and the accepted radiant therapy of cancer require highly specialized personnel and costly equipment. Adequate tissue preparations may be made by good technicians and mailed to a distant pathologist but his diagnosis is obscured and made difficult by lack of personal observation of gross specimens and familiarity with the history. Radium and deep x-ray therapy may be available in the community but they are frequently not of sufficient quantity, potency, or quality for satisfactory results. Radiant therapy even more than surgery is dangerous in the hands of the inexperienced operator. A community program such as the tumor clinic, by pooling facilities, can extend the benefits to wide areas and spread the cost so that they are available to everyone.

The diagnosis of cancer often amounts to a death sentence in the mind of the uninformed victim and means a complete readjustment of life to him and his family. The imposition of such a sentence is then a grave responsibility which, particularly when the patient is a friend or acquaintance, may tempt the physician to temporization. Group diagnosis divides responsibility and makes for earlier, more definite decisions.

The coordination of all points of view made possible by the joint attendance of a pathologist, radiologist, internist, and surgeon contributes to more intelligent recommendations and more adequate and appropriate therapy.

ADVANTAGES TO THE PATIENT

The clinic is not exclusively for the benefit of the individual patient, but his advantage is always the prime consideration. He profits by the combined experience of several specialist consultants without losing the personal and perhaps more sympathetic guidance of his own physician. Indeed, the emotional reaction of his doctor in some instances is counterbalanced by the assurance given as to the correctness of his diagnosis, and his management of the case can be only beneficially influenced by the counsel of his colleagues.

The patient must be instructed so that he will not feel embarrassed by reference to a clinic. He

should know that the clinic is meant for all people regardless of social or financial status, not as poor relief but as a professional clearing house of modern thought on malignancy. All suspected malignancies in the community should have the advantage of group diagnosis in the clinic.

THE PLACE OF THE PATIENT'S OWN PHYSICIAN

Although the patient may elect to remain under his own physician's care, the clinic may still be of service to the patient and doctor in urging acceptance of the recommended treatment and persistence in it once it has begun. Nor is the position of the patient's own physician jeopardized by the clinic; it is rather enhanced. The patient can be admitted only on his recommendation. He is invited, even urged, to come with the patient and to participate in the examination and discussion of the case. Whether or not he is present, the diagnostic conclusions and treatment recommendations are made only to him and he is the final arbiter as to whether the diagnosis should be revealed to the patient and as to whether or when or where the treatment recommendations are carried out. Only indigent patients can be treated in the clinic, and not even these unless the physician relinquishes them to the clinic personnel.

ADVANTAGES TO ALL PHYSICIANS

The participating physicians—not only the clinic personnel but also the physicians of the community, who are always welcome to attend the clinical sessions—obtain many advantages. Their regular attendance insures their seeing a wealth of clinical material and their participation in the discussion of cases with practitioners of several diverse specialties will advance their diagnostic skill not only in malignancy but in every field of medicine.

There must, of course, be regular attendance by the clinic personnel, otherwise the advantage of group diagnosis so important to the whole idea is lost. Even if the other physicians of the community find it difficult or impossible to attend regularly, they nevertheless profit from the clinic if the knowledge there gained is used as it properly should be in the preparation of papers and symposia for the professional meetings in the community. These should be frequent enough to keep all physicians advised of the activities of the clinic, of their right and privilege to attend, and how they can use its resources.

ORGANIZATION OF THE CLINIC

A tumor clinic may be established wherever the professional and other facilities are available. State aided tumor clinics are established by agreement between a county medical society and the

State Department of Health with a view to covering strategic areas. It is proposed that ultimately there be ten such clinics in the state, but this is not intended to hamper or limit their organization under private auspices anywhere.

The first step to be taken is action by the county medical society approving such organization and the appointment of a committee to confer with the State Department of Health and to be responsible for the professional activities of the clinic and promulgate rules. The funds made available vary in accordance with the expected number of patients, the area, and special needs, and must be approved by the National Cancer Institute.

It is expected that suitable space for the clinic and hospital beds for the care of indigent cancer patients under treatment as well as nursing and clinical assistance will be made available locally. The State Department of Health may then allocate funds, as agreed upon, with the approval of the National Cancer Institute, for part of the salary of clinical clerks, laboratory technicians or assistants, and for supplies. Payment in some instances may be made on a fifty-fifty basis for tissue diagnosis within limits and for the use of x-ray or other radiologic equipment by the radiologist of the clinic at five dollars per treatment up to certain agreed limits. Where definite need is shown, arrangements will be made for adequate radium on a rental basis. Standard record forms will be supplied.

The clinic will not be required to conform to any set pattern of procedure but the State Department of Health will give such supervision and advice as is desired to attain approval of the clinic by the American College of Surgeons and the National Cancer Institute.

The clinic may be located in a hospital or in some central site, the essential matter being its accessibility to all cancer patients and that it be open to all reputable physicians regardless of their hospital affiliations. Where there are several hospital staffs it is sometimes preferable to have quarters separate from a hospital, but this should not exclude the bedfast patient in any hospital from the services of the clinic.

It is highly important that regular meetings be held at stated times of which all physicians in the community are apprised. Clinical sessions should be held once a week or at least every two weeks and ordinarily, if physicians and patients cooperate, a period of two hours is sufficient time for each session.

Any patient referred by a physician should be admitted for diagnosis regardless of residence or ability to pay. The entire personnel of the clinic should participate in the review of each case.

The members of the clinic are selected by the county medical society. Their services are voluntary and may be rotated or not as determined by the society. The minimum personnel includes (1) a surgeon qualified by training and experience and admitted to operate in any hospital of the community; (2) a pathologist and (3) a radiologist, both of whom must be eligible for membership in their respective academies or certified by their special boards; (4) an internist of broad experience and preferably one with special interest in the problems of malignancy; and (5) such other specialists as may be available or needed in particular cases, such as an eye, ear, nose and throat specialist, a gynecologist, a urologist, or an orthopedist.

All these should be willing to give time to regular attendance and special study of the work of the clinic and to work together as a group. Unless each is present and all see the patient and discuss the diagnosis and treatment from the viewpoint of their own special knowledge of the subject, nothing is to be gained by the clinic, and the patient may as well remain in the hands of the original physician.

Since the clinic is organized by the county medical society, it must be assumed that it shall not in any way interfere with the interests of private physicians who may or may not refer their cases.

An important member of the personnel is the clinical clerk who has the obligation of keeping the records. These, for the sake of ease in securing statistical material which helps to evaluate therapy results, must be standard so that records of clinics throughout the country may be uniform. Quite as important both to the patient's welfare and to professional education is her stenographic record of the discussion of each case. All suggestions, even if they are not accepted, should be recorded, and such records may be later briefed for review at a clinicopathologic conference.

HOW THE CLINIC OPERATES

As has been said, any patient referred by a physician may be admitted to the tumor clinic for diagnosis. Hospital patients should be referred to the clinic as a matter of routine, and physicians will profit by such reference even in those cases where the diagnosis is clear. The physician should, if possible, accompany the patient and participate in the examination and discussion. All physicians are welcome to attend.

The history should have been prepared by the physician or intern, and it is read before the patient is seen. There may be questions or suggestions as to appropriate laboratory procedures that should precede examination. But since time is

an element in the prognosis of malignancy, no undue delay should be tolerated.

The patient is then examined by at least three or more of the personnel. Pelvic examinations may be made privately but even then the pathologist and radiologist should be present with the gynecologist or surgeon. A stenographic report of findings is recorded. When the examination is complete and the laboratory data are all collected, the patient is dismissed or returned to bed.

Then, with all available information at hand, the diagnosis is discussed by all participants in the clinic, particularly the referring physician. Once the nature of the disease, its grade of malignancy, and the present or potential metastases are considered, therapy is discussed. There may be varied opinions as to the value of radiant treatment as compared with surgery or the question of using both and when and how, but good teamwork will enable the personnel to arrive at a consensus which will probably be more nearly correct than any individual's lone opinion.

All the discussions and conclusions are recorded and the diagnosis and treatment recommendations are dictated by the chairman in the presence of the group to be later transcribed and given the patient's physician. No report is made directly to the patient and it lies within the discretion of the referring physician to transmit all or any part of it to his patient.

When the referring physician desires, and the patient qualifies by the criteria of indigency set up by the local medical society, the patient may be treated by the personnel of the clinic under such rules and restrictions as they themselves establish.

Ordinarily treatment includes ambulatory treatment in the clinic. If hospital beds are not available locally, indigent patients may be admitted to the University Hospitals at Iowa City under the usual regulations. If, however, they cannot be admitted for thirty days and a showing of emergency or need is made before a court, a patient may receive treatment in a local hospital at county expense, as provided by law.

In any case, whether locally treated or not, whether treatment recommendations are or are not carried out, the tumor clinic keeps the record and follows up the patient until satisfied that a cure has resulted or the patient dies. Such records are of incalculable value to correct and useful cancer statistics.

The test of an efficient clinic is in the concise accuracy of its records—a clear-cut clinical diagnosis verified by laboratory findings, adequate therapy, and complete follow-up. Other criteria of efficiency are complete and nearly perfect attendance records of the personnel, a large attendance

of local doctors at its sessions, and the relative number of cases admitted as compared to the cancer morbidity and mortality rates in the area. The American College of Surgeons makes inspections of clinics and approves them on the basis of qualified personnel, available facilities, and regularity and persistence in holding sessions. By this standard, three of the four Iowa clinics are fully approved and the fourth is so recently established that it has not yet been inspected.

There are now 392 cancer clinics fully approved and 39 others awaiting approval in this country. Iowa is exceeded in number of clinics by 17 states but has as many or more than 31 of the states. But with a cancer death rate of 155 per 100,000 as compared to a national rate of 122 and with a probable prevalence of some twelve to fifteen hundred cases, Iowa needs more tumor clinics. However, regardless of statistics and the humanitarian motive in giving the cancer patient the best available treatment, the clinic can serve a useful purpose and an important one in professional education. Its experience should be made available to the whole profession by adequate use of its records in the presentation of cases at staff and society meetings. Thus the degree of suspicion for precancerous and early lesions may be raised, the advantages and indications for biopsy stressed, and more orthodox and effective treatment methods taught. The tumor clinic, although primarily for the patient, can and should be made a teaching force in the profession and in the community.

CLINICOPATHOLOGIC CONFERENCE

BRIGHT'S DISEASE

MAJOR JOSEPH E. FLYNN, M.C., A.U.S.

CASE REPORT

Clinical History: When admitted to the hospital, the patient, a male 30 years of age, was in coma. Relatives stated that he had been in another hospital and that they had moved him against medical advice. The following history was obtained from the first hospital. Family history was irrelevant. Past history revealed the patient had pertussis in 1924, malaria in 1924, measles in 1935, and carbuncles and boils in 1942. He was honorably discharged from the Army in 1941 because of medical disability.

Present Illness: Following discharge from the

Army the patient considered himself to be in perfect health. He worked in a bauxite mine until February 1943. At about this time he noted pain in the lumbar region, frequency, and nocturia. These symptoms cleared in several weeks and the patient was able to resume work. In January 1944 he had an attack which he described as "flu." This was characterized by headache, fever, vomiting, pain in the left lower anterior chest and a cough productive of small amounts of sputum that contained brown flecks. A few days after the appearance of the above symptoms he had a severe sore throat lasting for three or four days. In the latter part of January, about ten days after he had had the "sore throat," he had pain in the right ear. The pain lasted four days. It ceased when the pus began to drain from the ear. The pus drained for approximately four days and then stopped. The pain did not recur. Concomitant with the above episode of "flu," sore throat, and pain in the ear, he noted rather marked weakness and weight loss. He remained in bed for thirty days. He was under a physician's care but he said he did not know what diagnosis was made. He returned to work February 14, 1944, again in a bauxite mine. During the remainder of February he stated that he was in good health. On the morning of April 22 he experienced marked dyspnea while climbing a small hill. Nevertheless, he went to work that day, and from that time on he noted dyspnea on exertion. On the evening of April 22 his feet were swollen and that night it was necessary for him to sleep in a chair because of dyspnea. On the morning of April 23 relatives told him his eyes were puffy. Later the same day he had rather severe nose bleeds. On the night of April 24 he had a sharp severe precordial pain lasting eight hours. He also thought his heart was much more rapid and that there were irregular beats. Another prominent symptom was cramping in both legs. On April 25 he had nausea and anorexia. A physician recommended hospitalization. He was admitted to the clinic of a university hospital as an ambulatory patient. Physical examination there showed considerable dyspnea. He had a temperature of 98.6 degrees. The pulse was 118, the respirations 30, and the blood pressure 150/102. The neck veins were distended. There was a slight left external otitis. The fundi were normal. The tonsils were enlarged and the pharynx was injected. There were râles in the right apex and in both bases posteriorly. The apex beat of the heart was just outside the midclavicular line in the fifth interspace. There was a maculopapular rash over the back and the extremities. A roentgenogram of the chest showed a large irregu-

lar area of diffuse infiltration around the hilar regions that extended downward to the diaphragm in the medial portions. Numerous urinalyses revealed a specific gravity that varied from 1.013 to 1.010, with an occasional red blood cell and four plus albumin in all specimens. The blood nonprotein nitrogen varied from 270 milligrams per 100 cubic centimeters on admission to 230 milligrams per 100 cubic centimeters on May 3. The red blood cell count varied from 2,500,000 to 1,930,000. The hemoglobin varied from 7 to 6.5 grams. The white cell count varied from 16,500 to 14,300. The plasma proteins were 7.55 grams per 100 cubic centimeters. On April 27, the blood pressure was 160/110. On April 28, a precordial friction rub was heard. On April 30 the patient had a severe epistaxis; at this time the blood pressure was 160/115. On May 1 the patient complained that his throat was sore. On May 2 precordial friction rub was again noted.

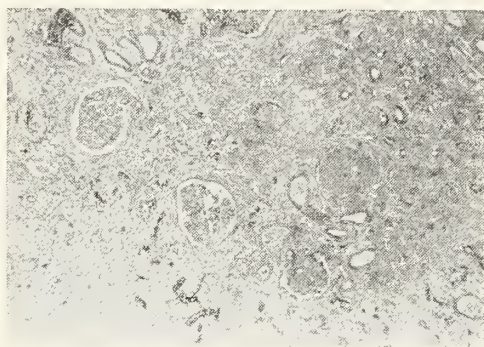


Fig. 1. Photomicrograph of kidneys showing some of the glomeruli to be metamorphosed into hyalinized balls of connective tissue and others with pericapsular fibrosis as well as reduced vascularity. Glomeruli with crescents are not included in the picture. The increased interstitial tissue is striking. A.M.M. Neg. 82280 (x 145)

From May 2 to May 5 the patient gradually became comatose. Uremic frost on the trunk and face was noted. There were muscular twitchings and much bleeding from the nose. The heart sounds were described as weak and irregular. The temperature did not become elevated. On May 5 the relatives signed the patient out and he was transferred to another hospital.

Physical Examination: On admission to the second hospital the patient was comatose. There was a rotary nystagmus and a moderate dilatation of the pupils. There was no rigidity of the neck. There was dulness over the right posterior lung apex and over the left lower lobe. There were occasional râles throughout the chest. There was no evidence of peripheral arteriosclerosis. The blood pressure was 160/90. The heart was moderately enlarged to the left. The rhythm and rate were normal. There was a loud rasping rub in

systole and in diastole, limited to the apex. There was a prominent apical systolic thrill. The reflexes were hypoactive.

Laboratory Data: At the second hospital the urinalysis showed a one plus albumin, many pus cells, and a specific gravity of 1.008. The red blood cell count was 1,800,000. The hemoglobin was 5 grams. The white blood cell count was 20,000. The neutrophils were 88 per cent. The nonprotein nitrogen was 248 milligrams per 100 cubic centimeters. The creatinine was 12.9 milligrams per 100 cubic centimeters. The blood sugar was 125 milligrams per 100 cubic centimeters. The spinal fluid was negative. A bedside roentgenogram of the chest revealed cardiac enlargement and a questionable pneumonitis. The electrocardiogram was negative. The heart rate was 110. The eyegrounds were normal.

Course: The patient remained comatose. He died thirty-six hours after admission.

Clinical Diagnoses:

1. Glomerulonephritis, chronic, bilateral, severe.
2. Arterial hypertension, severe, secondary to No. 1.
3. Cardiac enlargement, hypertrophy of left ventricle principally, moderate, secondary to No. 2.
4. Uremia, terminal, with uremic pericarditis, secondary to No. 1.
5. Anemia, severe, secondary to No. 1.

NECROPSY REPORT

No peripheral edema was noted. There was a marked fibrinous pericarditis. The heart weighed 500 grams. The cardiac hypertrophy was related chiefly to left ventricular enlargement. The coronary systems contained a few atheromatous plaques. Both lungs were heavier than normal and contained red-brown infiltrates that maintained a sharp edge when cut. There was a subacute pleuritis. The aorta exhibited slight sclerotic changes. The liver weighed 1,980 grams. There was exaggeration of the normal hepatic lobular architecture. The congested spleen weighed 230 grams. The kidneys were small, hard and granular. The right kidney weighed 110 grams, the left 40 grams. Except for a difference in size and weight, both showed essentially the same findings. The capsules were adherent. The cut surfaces were mottled because of numerous reddish brown and grayish white areas. The pars radiata were largely obliterated and the cortical medullary junctions were vague. The mucosa of the pelves and calices was gray and granular. The ureters were normal in size. The bladder mucosa was granular, injected, and gray. The ileum and cecum showed mucosal hemorrhages.

There was a generalized osteoporosis. Parathyroid enlargement was conspicuous.

Microscopically, sections of the kidneys revealed many of the glomeruli to display decreased vascularity of the tufts, capsular adhesions, cellular constituents, and precipitation of protein in the subcapsular spaces, simplification of the glomerular capillary tufts with thickening of the base-

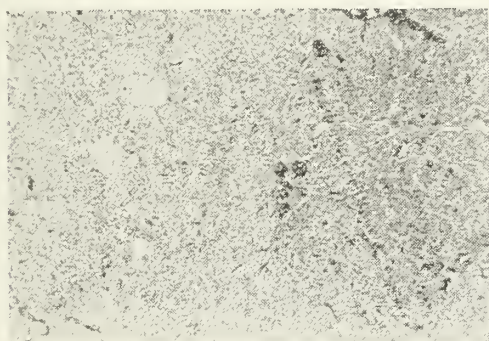


Fig. 2. Photomicrograph of parathyroid. Normally about two-thirds of the gland is made up of adipose tissue. Here there is almost total replacement by wasser-helle cells. A.M.M. Neg. 82279 (x 120)

ment membranes, increased intercapillary glomerular connective tissue, dilated tubules filled with casts as well as precipitated protein masses, arteriolosclerosis, and arteriosclerosis. There was a chronic cystitis and ureteritis. The blood vessels of the mucosa of the ileum were congested. Extravasation of erythrocytes was noted in the lamina propria. Inflammatory reaction was minimal. The parathyroids were composed almost entirely of water clear cells. Sections of the bones exhibited conspicuous osteoporosis. There was a marked reticular cell hyperplasia in all the lymph nodes. Cultures of the lungs yielded a pure growth of pneumococcus, type V.

Anatomic Diagnoses:

1. Glomerulonephritis, chronic, bilateral, severe.
2. Uremia (clinical, blood nonprotein nitrogen 248 milligrams per 100 cubic centimeters, blood creatinine 12.9 milligrams per 100 cubic centimeters).
3. Pneumonia, lobular, bilateral, severe, pneumococcus type V.
4. Ileotyphilitis, hemorrhagic, secondary to uremia.
5. Arteriolosclerosis, renal, bilateral, severe, secondary to glomerulonephritis.
6. Arteriolosclerosis, lungs, spleen, liver, periadrenal connective tissue, pancreas, thyroid, slight to moderate.
7. Arteriosclerosis, heart, kidneys, mesenteric vessels, moderate.
8. Hypertrophy and dilation, cardiac, marked.

9. Pericarditis, fibrinous, marked, secondary to uremia.

10. Pleuritis, subacute, right, secondary to pneumococcal lobular pneumonia.

11. Pyelonephritis, chronic, terminal, bilateral.

12. Ureteritis, bilateral, chronic.

13. Cystitis, chronic, moderate.

14. Hyperplasia, lymphoidal, reactive; abdominal and thoracic lymph nodes, moderate to marked.

15. Hyperkeratosis, follicular, probably secondary to vitamin A deficiency.

16. Hyperplasia, parathyroids, secondary to uremia.

17. Osteoporosis, generalized, slight, secondary to parathyroid hyperplasia.

18. Degeneration, focal, myocardial, secondary to uremia.

19. Anemia, secondary.

COMMENT

From the standpoint of pathology this is a textbook case of uremia occurring on the basis of chronic glomerulonephritis. The terminal acceleration of the glomerulonephritic process was undoubtedly precipitated by the upper respiratory infection and pneumonia. Life might have been prolonged appreciably if the pneumonia had been treated shortly after its onset with adequate penicillin therapy or appropriate anti-pneumococcus rabbit serum, together with an attempt to correct the altered physiology as outlined below. The management of this case is typical of the therapeutic nihilism with which many physicians view Bright's disease.

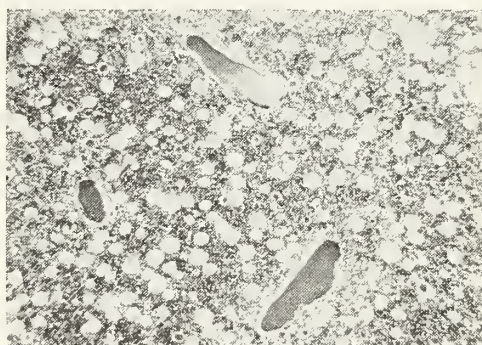


Fig. 3. Photomicrograph of vertebral bone marrow showing osteoporosis, secondary to parathyroid hyperplasia. A.M.M. Neg. 82282 (x 120)

As is usually the case, the gross renal changes were compatible with either nephrosclerosis, chronic pyelonephritis, or chronic glomerulonephritis. Microscopically, however, it was apparent that the concatenation of events was, first, a glomerulonephritis (Fig. 1); second, an arteriosclero-

sis; and third, a terminal pyelonephritis. The reasons for making glomerulonephritis the basic lesion rather than the chronic pyelonephritis or arteriolonephrosclerosis are as follows:

1. The virtual absence of completely normal glomeruli.
2. The diffuse distribution of the severely damaged glomeruli instead of arrangement in compact clusters.
3. The endothelial proliferation of Bowman's capsule.

The pyelonephritis, ureteritis, and cystitis probably occurred as the result of a lowered tissue resistance and a decrease in the normal flushing of the urinary passages subsequent to a terminal oliguria. The enlargement of the heart was secondary to hypertension. The fibrinous pericarditis was related to the uremia. The hemorrhagic ileo-typhilitis described in the protocol supports the pathogenesis of uremic enteritis that Jaffe¹ advanced several years ago; namely, that the earliest changes consist of capillary hyperemia of the mucosa, increased production of mucus and dilation of the small veins of the submucosa. Associated with the widening of the capillaries there is increased permeability that eventually leads to hemorrhage and devitalization of the tissue. Later there is a population of the necrotic tissue by bacteria. Subsequent sequestration of the necrotic tissue produces ulcerations.

The lobular pneumonia was caused by pneumococcus type V. Microscopically, there was nothing to suggest the so-called primary atypical pneumonitis—the microscopic picture of which is fairly uniform.

The enlargement of the parathyroids (Fig. 2) was due to an increase in the water clear cells. This hyperplasia was undoubtedly caused by a retention of the blood phosphates with subsequent lowering of the blood calcium. The retention of the blood phosphorus was of course on the basis of a functional inadequacy of the kidneys. No calcium or phosphorus levels were done during life. The osteoporosis (Fig. 3) was secondary to the hyperplasia of the parathyroids in their effort to correct the low blood calcium level.

The follicular hyperkeratosis listed in the diagnoses was of the type seen in vitamin A deficiency. In support of this interpretation there was also a suggestive early keratinizing metaplasia of the bronchiolar respiratory epithelium.

THERAPY OF BRIGHT'S DISEASE

From a clinical standpoint, many cases of chronic glomerulonephritis, chronic bilateral pyelonephritis and nephrosclerosis are imperfectly separable and are therefore best placed in the category called

Bright's disease. Much of the prodigious literature concerning the various entities listed is concerned with differential diagnosis. Furthermore, all too frequently the clinical interest in the patient resolves itself into a discussion of the differential diagnosis between these various entities. Fortunately, there is a growing tendency among clinicians to abandon the complexity of their morphologic classifications and instead, focus their attention on treatment.

Since it is impossible to replace the destroyed renal tissue, the treatment of Bright's disease must of necessity be directed toward correcting the altered physiology of the patient. In evaluating the altered physiology, the following laboratory tests will be found to be of value: (1) Blood nonprotein nitrogen and creatinine, (2) carbon dioxide combining power, (3) blood counts, (4) urinalysis, (5) blood proteins, (6) renal function tests such as the phenolsulphonthalein test.

In order to correct the altered physiology of the patient, it is necessary for the therapist to think in terms of function of the components of the structural unit of the kidney; namely, the nephron. The nephron consists of a glomerulus and a tubule. Christian² has pointed out that for a glomerulus to function normally it needs two things: First, an adequate blood supply; and second, a normal glomerular membrane through which the blood filtrate can enter the tubule. In order for a tubule to function normally it needs a normal epithelium, and likewise an adequate blood supply. In Bright's disease there eventually is alteration in both components of the nephron. Many cases are seen, however, in which the dysfunction of one of the components is responsible for the predominating clinical symptoms. For example, in glomerular abnormality, Christian² stresses two possibilities: First, the glomerular membrane may leak, whereas the blood flow through the glomerulus is normal; second, the blood supply of the glomerulus may be reduced. This reduction can occur either in the glomerulus itself or in the vascular tributaries to the glomeruli. In glomerular leakage, molecules larger than normal escape into the tubule—molecules such as albumin, globulin, fibrinogen. In severe leakage red blood cells or even leukocytes escape through the glomerular membrane. If there is throttling of the glomerular blood supply, there occurs a retention of certain constituents in the blood that are normally excreted by the kidney. If there is tubular alteration, disturbances in acid base balance occur. Glomerular leakage is manifested clinically by albuminuria, cylindruria, hematuria, and eventually renal edema due to the loss of the plasma proteins. Glomerular throttling is manifested clinically by hypertension, azotemia,

uremia, and eventually, if the patient lives long enough, congestive heart failure. Tubular alteration is manifested clinically by acidosis. Therapy of Bright's disease can be directed, therefore, toward correcting the various manifestations of dysfunction. The principal clinical manifestations of dysfunction consist of edema, azotemia, acidosis, hypertension, anemia and variations thereof.

1. *Edema*: The edema is due to a hypoproteinemia. By far the fastest and easiest method for the correction of the hypoproteinemia is the administration of intravenous albumin.³ In the use of intravenous albumin it is important to remember that each gram of albumin given augments the plasma volume by 18 cubic centimeters. Hence, if 25 grams of albumin are given intravenously, counting the 100-cubic-centimeter diluent used to administer it, the blood plasma volume is increased by 500 cubic centimeters. If 50 grams are given, the blood volume is increased by 1,000 cubic centimeters. In the absence of congestive heart failure 25 grams of albumin, or more as necessary, can be given daily until diuresis ensues, and thereafter as necessary. If no azotemia is present, this therapy should be supplemented with a diet high in protein.

2. *Azotemia*: The therapy of azotemia should be directed toward reducing the fixed acid excretion of the kidneys. This can be done by placing the patient on a milk diet, 2,000 or 3,000 cubic centimeters daily, and adding aluminum hydroxide³ either in the form of creamalin or amphojel. The aluminum hydroxide combines with the phosphorus in the diet, reducing fixed acid absorption and thereby lessening the burden of the already overburdened kidneys. Since azotemia is associated with fixed acid retention, the alkali reserve must be watched closely. When azotemia is present, it is generally wise to give the patient sodium bicarbonate (3 to 5 grams daily) by mouth. If edema is present, give the sodium bicarbonate after the hypoproteinemia has been corrected by intravenous albumin. Thorn³ in his excellent article has stressed again that glomerular filtration is accelerated by the administration of fluids. A milk diet of 2,000 or 3,000 cubic centimeters will insure adequate fluids. It is interesting to note that Bright also recommended a milk diet. If nausea and vomiting are present, give several liters of saline and glucose daily.

3. *Acidosis*: This may be corrected by giving either sodium bicarbonate by mouth or sodium intravenously. In the intravenous administration of alkali, either sodium bicarbonate or sodium lac-

tate may be used. The usual formula for the calculation of the amount of alkali to be given is the following: $(60 - \text{CO}_2 \text{ combining power Vol.}\%) \times 0.7 \times \text{weight in kilograms} \div 2.24$ equals the number of millimols of sodium bicarbonate or sodium lactate to be given. One millimol of sodium bicarbonate or sodium lactate equals 1 cubic centimeter of a molar solution. For example, a patient with Bright's disease weighing 60 kilograms has a carbon dioxide combining power of 20. To determine the amount of alkali to be given in the form of millimols of sodium bicarbonate or sodium lactate, the calculation is as follows: $(60 - 20) \times 0.7 \times 60 \div 2.24 = 750$. Hence 750 millimols (750 cubic centimeters of a molar solution) of sodium bicarbonate or sodium lactate would be given. In practice it is advisable to give about two-thirds of the calculated dose and then repeat the carbon dioxide combining power. If sodium bicarbonate is used, 84 grams of chemically pure (not U. S. P.) sodium bicarbonate are dissolved in 1,000 cubic centimeters of distilled water. This makes a molar solution. The solution is then sterilized by passing through a Seitz filter into a sterile container. The solution cannot be sterilized by heat. Sodium bicarbonate solution should be used immediately. Sodium lactate is easier to use since commercially it is available in ampules of various sizes ready for immediate use. The sodium lactate can be added to either saline or glucose solutions. After correction of the acidosis by intravenous alkali therapy, sodium bicarbonate should be given by mouth. Several cases are reported where such simple measures prolonged the useful life of patients with Bright's disease for years.⁴

4. *Hypertension*: The treatment of the foregoing alterations associated with hypertension is essentially the same except that intravenous fluids are given in divided doses to avoid overburdening the heart. Thorn³ recommends that when edema and hypertension are present, albumin be given in divided doses (8 grams three times a day).

5. *Anemia*: It is believed that the anemia in Bright's disease is the result of toxic depression of the bone marrow; hence the anemia can be corrected only by blood transfusion. Iron and liver extracts are usually of little use.

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STATE DEPARTMENT OF HEALTH

Walter L. Diering

Poliomyelitis in Iowa--1945

REPORTS BY MONTHS

On Saturday, September 15, cases of poliomyelitis as notified to the State Department of Health to date in 1945 totaled 134. The following table presents figures showing the expected number of cases by month (column 1) based on a nine year average for the years 1935-1943, also cases as actually reported in 1945 (column 2), and for comparison, the monthly totals for 1944 and 1940.

REPORTED INCIDENCE OF POLIOMYELITIS

Month	Expected Number Nine Year Average 1935-1943	1945	1944	1940
January	2	0	0	12
February	2	2	0	7
March	1	0	0	1
April	1	0	0	1
May	1	1	0	2
June	0	2	0	5
July	4	6	16	21
August	13	68	48	174
September	23	55	60	421
		(through 9/15)		
October	30		60	242
November	9		14	32
December	3		6	11

It will be noted that during August about five times the expected number of cases were reported, the total being in excess of reports for 1944, but only about one-third as many cases as were notified in 1940. During 1940 the disease was more prevalent than in any previous year of record except 1910.

DISTRIBUTION OF REPORTED CASES IN 1945

Listed below are counties from which one or more cases of poliomyelitis have been reported to date (September 15) during the current year. Counties reporting most cases appear in order of prevalence as follows:

County	Number of Cases	County	Number of Cases
Cerro Gordo	26	Linn	3
Polk	13	Webster	3
Floyd	12	Winnesiek	3
Mitchell	9	Worth	3
Hancock	7	Wright	3
Black Hawk	6	Lyon	2
Clay	6	Mahaska	2
Clinton	4	O'Brien	2
Kossuth	3	Story	2

County	Number of Cases	County	Number of Cases
Union	2	Marion	1
Woodbury	2	Osceola	1
Appanoose	1	Page	1
Cherokee	1	Pocahontas	1
Chickasaw	1	Pottawattamie	1
Clarke	1	Poweshiek	1
Dallas	1	Sac	1
Fayette	1	Tama	1
Grundy	1	Taylor	1
Howard	1	Warren	1
Jasper	1	Winnebago	1
Keokuk	1		

The disease manifests major prevalence this year in north central Iowa. Most cases have been reported so far from Cerro Gordo County, with nearby counties (Floyd, Mitchell, Hancock) also showing abnormal occurrence.

By September 15, the disease had been notified from 41 counties while no cases had been reported from the remaining 58 counties.

PREVALENCE OF DISEASE

Disease	Aug. '45	July '45	Aug. '44	Most Cases Reported From
Diphtheria	8	4	8	Pottawattamie, Black Hawk, Dallas
Scarlet Fever	50	46	54	Polk, Pottawattamie, Des Moines
Typhoid Fever	15	0	7	Appanoose, Adams, Polk
Smallpox	0	1	0	
Measles	22	85	23	Polk, Boone, Des Moines
Whooping Cough	47	37	29	Polk, Allamakee, Des Moines
Brucellosis	14	19	32	Clinton, Washington, Adair
Chickenpox	20	40	17	Pottawattamie, Dubuque, Black Hawk
German Measles	4	3	1	Boone, Clinton, Des Moines
Influenza	0	0	0	
Malaria	80	26 ^a	49	Clinton, Page, Cedar
Meningococcus				
Meningitis	5	1	7	Linn, Franklin, Jefferson
Mumps	53	115	49	Dubuque, Des Moines, Black Hawk
Pneumonia	3	854 ^b	8	Benton, Clinton, Marion
Poliomyelitis	68	6	48	Cerro Gordo, Mitchell, Polk
Tuberculosis	60	61	60	For the state
Gonorrhea	225	208	200	For the state
Syphilis	86	104	149	For the state

^aTwenty-five of the twenty-six cases were incurred outside the United States.

^bDelayed reports from Iowa Hospitals covering first twenty-six weeks of 1945.

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VICTORY LOAN—TO FINISH THE JOB!

The people of America are being given final opportunity to invest in War Bonds, only this time they will be called Victory Bonds. The over-all quota, corporate and individual, is eleven billion dollars. The quota for individuals is four billion—two billion for E Bonds alone. The dates for the drive are from October 29 to December 8.

Many people may wonder why it should be necessary to buy bonds now that the war is over and peace has been declared. It requires only a little thought to make clear why the United States Treasury must have the money. First of all there is the care of our wounded servicemen and the rehabilitation of the veterans. In addition there are the items of mustering out pay, education, loans, and general administration of the GI Bill of Rights—all of which every American citizen will agree is more than coming to every one of our boys and girls who wore the uniform of their country during the war. Also, there are yet thousands of men who must be brought home, and this is just as expensive as sending them over. Furthermore, the armies of occupation must be maintained for an indefinite time. All of these things cost money and lots of it.

Then there are the expenses associated with the cancellation and termination of war contracts. Inflation is still a threat with which we must cope. It is estimated that the difference between purchasable goods and services and income will be about forty billion this year. Moreover, Americans have accumulated about one hundred billion dollars in savings since Pearl Harbor. If an additional, substantial amount of

money can be saved through the purchase of Victory Bonds for the purchase later of homes, education of children, starting businesses, etc., inflation can be kept under control, but if this money should be thrown into the market helter-skelter to buy anything available, then an inflationary chaos would be bound to result. Our boys have finished their job in Europe and Asia, let us now finish ours here at home!

NITRATES IN WELL WATER AS A CAUSE OF CYANOSIS IN INFANTS

Orchids to the Pediatric Department of the University of Iowa on an excellent piece of research in clearing up a puzzling symptom complex which has been observed for some time both here in Iowa and elsewhere. In the past years many of us have had under our care infants brought into the hospital in deep cyanosis, only to have the cyanosis disappear in a day or two and the infants remain well during the remainder of their hospital stay. In some instances, when these infants returned to their homes they became cyanotic again within a very few days and returned to the hospital with an exact duplication of the original clinical picture. No satisfactory explanation was forthcoming until the work at Iowa City, as reported by Comly in the September 8 issue of the *Journal of the American Medical Association*, showed that the cyanosis was due to excessive nitrates in the well water used in making formulas for these infants. Previous to this various causes had been suspected and searched for, including congenital heart disease, enlarged thymus, escaping gases from defective furnaces or stoves in the homes, etc. In most instances all such suspicions could not be substantiated and recovery had taken place before further studies could be carried out.

It is interesting to note that the physicians at Iowa City were put on the right track by the father of one of their patients, who believed that it was the well water which was causing the illness of his child. Credit goes to the physician who did not brush off this lay suggestion, as we fear most of us would, but thought it plausible enough to merit investigation. When this sample of well water was analyzed for nitrate nitrogen value, it was found to contain 140 parts per million. Normally well water should contain no more than 10 or at the most 20 parts per million of nitrate content according to the Iowa report.

All of the babies suffering from this condition who have come to our attention have been artificially fed and have come from rural areas where the water used in making formulas is from wells. Comly states that the high nitrate water which

the cyanotic infants ingested came from improperly constructed or improperly situated wells. Whether the contamination comes from the surface or seeps through from the soil, and whether the contamination is greater in some seasons of the year than in others, are points which need further investigation. At any rate the excessive nitrates in the water result in methemoglobinemia which can be quickly abolished by injections of methylene blue as was done in the early days of methemoglobinemia from sulfonamides. However, in most instances administration of this drug is actually not necessary since the infants quickly recover when the excessive nitrate water is withdrawn from the formulas. To avoid the risk of this type of cyanosis, the author suggests that the formula employed should be one in which a minimum of water is prescribed for dilution purposes. Thus, powdered milks requiring all water would be the most objectionable and dilutions of whole cow's milk, since they require the least water, would be most satisfactory.

This report by Comly should be of great interest and value to Iowa physicians, since it would appear that it is in this state and states like it that cases of this type are most likely to be encountered.

S. 1318

Two issues ago in these columns we directed the attention of our readers to a report by the National Commission on Children in Wartime published by the Children's Bureau. Even before the JOURNAL was printed, Senator Pepper and nine of his senatorial colleagues on July 26 introduced Senate Bill 1318 which contained practically intact the proposals made by this national commission. This bill, S. 1318, will provide the Children's Bureau with a minimum of \$100,000,000 annually with which to continue an enlarged or super EMIC program. Thus far no information is available concerning the methods of administration which would be followed in case the bill should be passed. While the war was in progress and because of the patriotic angle involved, physicians accepted, although not without strong objection, arbitrarily administrative rules imposed by the Children's Bureau. Among these were the regulations that fees must be paid directly to the physician, that fees established by the Children's Bureau must be the only fees the physician could accept regardless of the financial status of the patient, and that beneficiaries could not by additional funds of their own purchase private hospital facilities and still receive the government benefit.

In order to bring the features of S. 1318 clearly to our readers, we quote the following analysis

prepared by the Bureau of Legal Medicine and Legislation of the American Medical Association. It should be remembered that of the total \$100,000,000 appropriation \$50,000,000 is to be earmarked for maternal and child health services, \$25,000,000 for services for crippled children, \$20,000,000 for child welfare services, and \$5,000,000 for administrative expenses.

TITLE I. MATERNAL AND CHILD HEALTH SERVICES

The stated objectives of this title are to provide and maintain services and facilities to promote the physical and mental health of mothers during the maternity period and of children, including medical, nursing, dental, hospital and related services and facilities required for maternity care, preventive health work and diagnostic services for children, school health services, care of sick children, and correction of defects and conditions likely to interfere with the normal growth and development and the educational progress of children. The development of more effective measures for carrying out the purposes of the title is contemplated, including demonstrations and the training of personnel for state and local maternal and child health services.

Of the total appropriation to be made available under this title, \$5,000,000 will be allotted by the Secretary of Labor to the several states, and allotments must be matched dollar for dollar by state or state and local funds. In determining what amount each state shall be allotted, the Secretary of Labor will take into consideration the number of children under 21 years of age in such state in relation to the total number of children under 21 years of age in the United States.

The remainder will be allotted to the states by the Secretary of Labor after taking into consideration for each state such factors as the number of mothers and children under 21 years of age in the state for whom the services and care are to be made available, and the cost of furnishing such services and care to them, the special problems of maternal and child health and the financial need of the state for assistance in carrying out the state plan.

Approval of State Plans.—Allotments will be paid to those states whose plans for developing programs and for providing care and services have been approved by the chief of the Children's Bureau. In order for a plan to be approved by the chief of the Children's Bureau, it must:

1. Provide for financial participation by the state.
2. Provide for a statewide program or for extension of the program each year so that it will be in effect in all political subdivisions by July 1, 1955.
3. Provide that services and facilities shall be available to all mothers and children in the state or locality who elect to participate in the benefits of the program. There must be no discrimination because of race, creed, color or national origin and no residence requirements.
4. Provide for the administration of the plan by the state health agency, or for the supervision of the administration of the plan by the state health agency, and for appropriate coordination of the plan with the general public health and medical care program of the state health agency which will be authorized to develop agreements or cooperative arrangements with other state or local public agencies whose functions include the provision of services similar or related to those furnished under the state plan.
5. Be made part of the state plan for maternal and child health services submitted in accordance with the provisions of title V, part 1, of the Social Security Act.
6. Provide effective methods of administration,

including the establishment and maintenance of personnel standards on a merit basis, standards for professional personnel rendering medical, dental, nursing and related types of care or service, and standards for hospital and other institutional care and services. Standards are to be established by the state health agency after "consultation" with professional advisory committees appointed by the state health agency. Mothers and children, or persons acting in their behalf, will be permitted to select, from among those meeting standards prescribed by the state health agency, the physician, hospital, clinic or health service agency of their choice. Where no such selection is made, the state plan must set forth the method by which the care will be made available. The bill provides that the physician, hospital, clinic or health service agency selected may refuse to accept the case.

A state plan must provide for adequate remuneration for the persons and institutions providing medical care and related services, must provide opportunities for postgraduate training of professional and technical personnel, and for such use of health centers, hospitals, clinics and health service agencies, public and voluntary, as will achieve the satisfactory distribution and coordination of preventive, diagnostic, consultative and curative services provided by general practitioners, specialists, public health personnel, laboratories and others.

A state plan must provide payments to individual physicians for care furnished under this title on a per capita, salary, per case or "per session" basis or, in the case of consultations or emergency visits, on a fee-for-service basis. A state plan must furthermore provide for the purchase of care from public or voluntary hospitals and other health service agencies included under the state plan on a basis related to cost for providing the care.

7. Provide for adequate dissemination of information with regard to the maternal and child health services to be made available under this title.

8. Provide for reports to the chief of the Children's Bureau.

9. Provide for cooperation with medical, health, hospital, nursing, education and welfare groups and organizations in the state.

10. Provide (a) for a general advisory council appointed by the state health agency and composed of members of the professions or agencies, public and voluntary, that furnish care or services under the state plan, and other persons representing the public who are informed on the need for and problems related to the provision or receipt of maternal or child health services and medical care of mothers and children, and (b) for technical advisory committees appointed by the state health agency composed of medical and other professional groups concerned with the administration or operation of a state plan. If the state health agency administers a program for services to crippled children, the same general advisory council shall serve both the maternal and child health and the crippled children programs.

11. Provide for a fair hearing before the state health agency for any mother or other person acting in behalf of a child whose claim for services is denied or for any physician or other person, organization or institution participating or desiring to participate in furnishing services or facilities under the plan.

Federal Advisory Committees.—The chief of the Children's Bureau will formulate general policies for the administration of this title after "consultation" with a conference of state health officers and an advisory committee composed of professional and public members and, as necessary, technical advisory committees which "he" shall appoint.

TITLE II. SERVICES FOR CRIPPLED CHILDREN

The stated objectives of this title are to enable each state to provide and maintain services and facilities for the care and treatment of children who are crippled, otherwise physically handicapped or suffering from conditions which lead to crippling or physical handicaps, including services for locating such children, for providing medical, surgical, corrective and other services and care, and facilities for diagnosis, hospitalization and after-care for such children. Demonstrations and the training of personnel for state and local crippled children's services are contemplated.

Out of the total appropriation authorized under this title, the Secretary of Labor will allot to each state such part of \$2,500,000 as he finds that the number of children under 21 years of age in such state bore to the total number of children under 21 years of age in the United States in the latest calendar year for which the Bureau of the Census has available statistics. Such allotments must be matched dollar for dollar by state or state and local funds made available for services for crippled children.

The remainder of the appropriation will be allotted to the states by the Secretary of Labor after taking into consideration for each state such factors as (1) the number of crippled children under 21 years of age in the state for whom services and care are to be made available and the cost of furnishing such services and care to them, (2) the special problems of crippled children and (3) the financial need of the state for assistance in carrying out the state plan.

Approval of State Plans.—Allotments will be made to the states which have submitted to and had approved by the Children's Bureau state plans for developing programs for crippled children. As in the case of state plans developed under title I, the bill indicates the contents a state plan must have to be approved. Such a state plan for services for crippled children must meet essentially the same requirements specified for plans developed under title I except that, if a state agency other than the state health agency is designated by state law to administer the program for crippled children, that agency may continue as the state administrative agency until July 1950, after which the state health agency must have jurisdiction. Services to be provided under this title must be available to all crippled children without regard to financial status, race, creed, color or national origin, and there may be no residence requirement. Individual physicians will be paid as indicated in title I, except that title II makes no provision for payment on a per capita basis.

Federal Advisory Committees.—The chief of the Children's Bureau will formulate all general policies for the administration of this title after "consultation" with (1) a conference of executive officers of state agencies administering the program for crippled children under this title and (2) an advisory committee composed of professional and public members and, as necessary, technical advisory committees, which "he" shall appoint.

TITLE III. CHILD WELFARE SERVICES

The declared purpose of title III is to assist each state public welfare agency to develop effective statewide child welfare programs and measures, including the training of personnel, for extending and strengthening public child welfare services, and for providing suitable care and protection for children without parental care and supervision, and children who are dependent, neglected or delinquent, or in danger of becoming neglected or delinquent.

For each of the fiscal years ending June 30, 1946 and June 30, 1947, the Secretary shall allot to each state such part of \$10,000,000, and for the fiscal

year ending June 30, 1948, and for each fiscal year thereafter such part of three-fourths of the total amount appropriated for child welfare services as he finds that the number of children under 21 years of age in such state bore to the total number of children under 21 years of age in the United States in the latest year for which the Bureau of the Census has available statistics. Such allotments must be matched dollar for dollar by state or state and local funds made available for child welfare services.

For the fiscal year ending June 30, 1946, and for each fiscal year thereafter the remainder of the sum appropriated for child welfare services will be allotted to the several states by the Secretary of Labor, taking into consideration for each state such factors as (1) the number of children under 21 years of age in the state for whom child welfare services are to be made available and the cost of providing such services and care to them, (2) the special problems of child welfare and (3) the financial need of the state in carrying out the state plan.

Approval of State Plans.—Allotments will be made to states which have submitted to and had approved by the Children's Bureau state plans for child welfare services. The chief of the Children's Bureau will be required to approve any state plan which meets the following conditions:

(1) Financial participation by the state.
 (2) A statewide program, including at least guidance and social service to or in behalf of children who are dependent, neglected or delinquent, or in danger of becoming neglected or delinquent, or for the extension of the program each year so that such guidance and service will be available to all children in need thereof, in all political subdivisions of the state not later than July 1, 1955.

(3) Services and care furnished under the plan must be made available to all children without regard to financial status, race, creed, color or national origin, and without residence requirements.

(4) Administration or supervision of the plan by the state public welfare agency and coordination of the plan with the general public welfare program of the state public welfare agency which will be authorized to develop agreements or cooperative arrangements with other state agencies whose functions include the provision of services related to the services furnished under the state plan.

(5) The state plan must be made a part of the plan for child welfare services submitted in accordance with the provisions of title V, part 3, of the Social Security Act.

(6) The plan must provide such methods of administration as are found by the chief of the Children's Bureau to be necessary for the proper and efficient operation of the plan, including methods relating to the establishment and maintenance of personnel standards on a merit basis.

(7) The state public welfare agency must make such reports in such form and containing such information as the chief of the Children's Bureau may from time to time require.

(8) Appropriate cooperation must be provided for with state and local agencies, public and private, concerned with child health, education, child welfare and related subjects.

(9) The plan must provide for a program of training for personnel rendering child welfare services.

Definitions.—As used in this title, the term "child welfare services" means (1) guidance and social service to or on behalf of children who are dependent, neglected or delinquent, or in danger of becoming neglected or delinquent; (2) placement, supervision and maintenance of children in foster family homes; (3) temporary care of children who are dependent, neglected or delinquent, or in danger of becoming neglected or delinquent, especially in

areas where children would otherwise be detained in jail or would be deprived of necessary protection and shelter or study of their special needs; (4) specialized services needed to strengthen and improve the programs of public institutions caring for children; (5) care in foster homes or day care centers for children whose mothers are employed or whose home conditions require care outside their own homes during any part of the twenty-four hour day, including services necessary to assure proper use of day care facilities and to safeguard children receiving care; (6) payment of the cost of returning nonresident children to their own communities; if such return is desirable and the cost thereof cannot otherwise be met, and (7) cooperation with state and community agencies in improving conditions affecting the welfare of children.

TITLE IV. ADMINISTRATION

If the Secretary of Labor finds that in the administration of any plan approved under the bill there is a failure to comply substantially with any requirement specified as necessary for inclusion in a state plan, he may withhold further allotments.

The Children's Bureau will be directed to make and aid the financing of such studies, demonstrations, investigations and research as will promote the efficient administration and operation of the legislation.

TITLE V. GENERAL PROVISIONS

The chief of the Children's Bureau, subject to the approval of the Secretary of Labor, will make and publish such rules and regulations as are necessary to the efficient operation of the legislation and will be required to submit each year to the Congress a full report of such administration.

As used in the bill, the term "state" means any state of the United States, the District of Columbia or any territory or possession of the United States.

There can be no question but what physicians along with all other citizens of the country are in sympathy with the general provisions of this bill; that is, to bring better health services to mothers and children of America, but it is also certain that the bulk of practicing physicians will not be in sympathy with Senator Pepper's proposed method of attaining this objective. As we said before, the factor of patriotism entered largely into the cooperative attitude physicians adopted in carrying out the EMIC program, but in the postwar period this factor will not be involved. It can be expected, therefore, that the establishment of a governmental agency in such a dominant rôle in the practice of medicine as this bill would create for the Children's Bureau will be vigorously opposed.

LET'S MAINTAIN OUR ADVERTISING!

Most of our readers may be familiar with the fact that the great bulk of the advertising material carried in the JOURNAL comes through the Cooperative Medical Advertising Bureau of the American Medical Association. In other words, a manufacturer who wishes to advertise his product in the various state journals has to deal with only one concern rather than with each individual state journal office. Obviously, this makes for efficiency and saves time and expense for both the commer-

cial houses and the journal offices. Whether or not a manufacturer uses a state journal to advertise his product depends upon information he secures regarding the effectiveness of his advertising in the area served by that particular journal.

Our readers are also well aware that the greater the amount of advertising a journal can carry the less is the cost of the journal to the society and, indirectly, to each member. Furthermore, the advertisements accepted for the journals by the Cooperative Medical Advertising Bureau are for reliable products only, all of them Council approved. This means that no advertisement appears in the JOURNAL for a product upon which complete reliance cannot be placed.

One method commercial houses have of evaluating the effectiveness of their advertisements is by the number of responses they receive from readers where invitations are included to write for reference books, literature, or samples. For instance, in the September issue of the JOURNAL there were advertisements of seven well-known national commercial houses which made such an offer. We hope our readers are taking advantage of these invitations, and by doing so they will be helping the JOURNAL to maintain a satisfactory volume of advertising.

Obviously, mutual benefit is to be secured through the brand of advertising carried in our JOURNAL, but if this service to our readers is to continue as we should like to have it, it must be a cooperative proposition or else our advertisers will drop away.

OMAHA MID-WEST CLINICAL SOCIETY TO MEET OCTOBER 22 TO 26

The Omaha Mid-West Clinical Society will hold its thirteenth annual assembly in Omaha October 22 to 26, inclusive. Headquarters will be at Hotel Paxton. The five day program will include addresses, clinics and round-table discussions by distinguished guests, and symposia and lectures by members of the Society. There will be a daily motion picture program and scientific and technical exhibits.

Following is a partial list of the guest speakers: Elmer Belt, Los Angeles, California (Urologist); Sylvester N. Berens, Seattle, Washington (Neurosurgeon); Guy A. Caldwell, New Orleans, Louisiana (Orthopedic Surgeon); Archibald D. Campbell, Montreal, Canada (Gynecologist-Obstetrician); Burrill B. Crohn, New York City (Internist; Gastro-enterology); Charles A. Doan, Columbus, Ohio (Internist; Research); Lester R. Dragstedt, Chicago, Illinois (Surgeon; Physiology); Robert H. Felix, Washington, D. C. (Psychiatrist); Edward J. McCormick, Toledo, Ohio (Chairman, Council on Medical Serv-

ice and Public Relations, American Medical Association); Alan R. Moritz, Boston, Massachusetts (Pathologist; Legal Medicine); John A. Toomey, Cleveland, Ohio (Pediatrician-Contagious Diseases); Henry P. Wagener, Rochester, Minnesota (Ophthalmologist); and Mr. J. Ketchum, Detroit (Executive Secretary, Michigan Medical Service).

Titles of the symposia to be presented on Tuesday and Thursday are: The Arthritides; Bleeding from the Alimentary Tract; Fractures; Head Injuries; Penicillin; Technic for Lessening the Morbidity and Mortality in Obstetrics. Friday, October 26, will be given over to a panel on Military Medicine presented by personnel of the United States Army Medical Corps.

All Medical Officers of the United States Army, Navy and Public Health Service will be admitted without payment of the usual five dollar registration fee.

MEETING OF THE HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION

Word has been received that, due to relaxation of the ODT rules governing conventions, the House of Delegates of the American Medical Association will be called into session in Chicago December 3 to 6, 1945. With the many important problems facing the medical profession, it is fortunate that it will be possible to have this meeting and discuss fully the developments of the eighteen months since the House of Delegates last met, as well as the future which medicine is to take.

FIELD PERSONNEL NEEDED FOR HOSPITALS IN CHINA

The Chinese Government has requested the United Nations Relief and Rehabilitation Administration to provide, as soon as possible, some two hundred field personnel to strengthen the available Chinese personnel. They will be required to head the respective services in hospitals of 100 or 250 beds, which will be established in areas recently liberated from the Japanese. Personnel of the following categories are needed: General surgeons, orthopedic surgeons, genito-urinary surgeons, gynecologists and obstetricians, general physicians, dermatologists and syphilologists, ophthalmologists, otolaryngologists, radiologists, dentists, pediatricians, laboratory technicians, x-ray technicians, sanitary engineers, public health engineers and public health nurses, and clinical nurses. General practitioners with some specialist experience will be acceptable. Candidates should be under fifty-five years of age and in good physical condition.

Those interested may write Szeming Sze, M.D., Chief, Far Eastern Section, Health Division, UNRRA, 1344 Connecticut Avenue, N. W., Washington 25, D. C.

**MINUTES OF MEETINGS OF STATE SOCIETY
OFFICERS AND COMMITTEES
Meeting of the Executive Council
September 9, 1945**

The Executive Council of the Iowa State Medical Society met at the Hotel Fort Des Moines in Des Moines Sunday, September 9, 1945, with the following doctors present: Councilors L. L. Carr of West Union, C. H. Cretzmeier of Algona, J. B. Knipe of Armstrong, R. N. Larimer of Sioux City, C. A. Boice of Washington, R. C. Gutch of Chariton, and J. G. Macrae of Creston; Trustees J. I. Marker of Davenport, W. A. Sternberg of Mt. Pleasant, and L. R. Woodward of Mason City; R. D. Bernard of Clarion, President, R. L. Parker of Des Moines, President-Elect, J. C. Parsons of Des Moines, Secretary, and J. A. Downing of Des Moines, Treasurer. Also present were Doctors W. L. Bierring and M. I. Olsen of Des Moines, Fred Sternagel of West Des Moines, and C. T. Maxwell of Sioux City.

Business transacted was as follows: Cooperation with other states in a thirteen week trial national radio program was authorized; action on a letter from the Iowa chapter of the American Academy of Optometry was left pending further information; suggested NPC newspaper advertising was not recommended; an increase in State Society dues to make possible a publicity program such as radio was recommended; the Iowa Society for Mental Hygiene was approved; a report on the medical service plan was given, as well as a report on the progress of the hospital survey and information about the Hill-Burton bill; and the program for local care of veterans was approved in principle, but the method of approach employed by the Veterans Administration disapproved.

Meeting adjourned at three p. m.

**Meeting of the Committee on Medical Service
and Public Relations
September 9, 1945**

The Committee on Medical Service and Public Relations of the Iowa State Medical Society met at the Hotel Fort Des Moines in Des Moines, Sunday morning, September 9, 1945, with the following doctors present: Fred Sternagel, Chairman, R. D. Bernard, L. R. Woodward, C. T. Maxwell, M. I. Olsen, and R. C. Gutch of the committee, and R. L. Parker, President-Elect.

Minutes of the previous meeting were read, corrected and approved; NPC newspaper advertising was not recommended by the subcommittee; an increase in State Society dues was urged; and action on a letter from the optometrists was deferred. Meeting adjourned at ten a. m.

Veterans Administration Program in Iowa

The Executive Council of the Iowa State Medical Society met September 9 to consider the Veterans Administration program for home care of veterans for service connected disabilities, and after due discussion, passed the following motion: We approve medical care of veterans for service-connected disabilities in their own home communities, but as a Society we disapprove the method of approach employed by the Veterans Administration in making contracts with individual members of the Society for various medical services without previously contacting the Iowa State Medical Society, and we further suggest that the Veterans Administration approach the hospitals through the Iowa Hospital Association rather than directly.

An error was made on last month's page under the paragraph "Care of Non-Service-Connected Disabilities." It was said that the doctor might work with the service officer of the American Legion post. It should have read that each of the veterans' organizations, the American Legion, Veterans of Foreign Wars, and Disabled American Veterans, have such a service officer.

INFORMATION FOR RETURNING MEDICAL OFFICERS

NARCOTIC REGISTRATION

Doctors returning from military service who wish to regain their narcotic registration number should apply for re-registration on Form 678-A. For the last three years, the Registration Bureau has kept the physician's registration number for him, and he may have it reassigned to him if he wishes. Physicians who entered service earlier than that may not be able to get their same number because this policy was not followed in the first year or so of the war. There are, however, a good many lower numbers available because of the death of physicians who held them. Any doctor who has a high number may request a lower one when reapplying, if he wishes to do so.

RENEWAL OF LICENSE TO PRACTICE MEDICINE IN IOWA

Most physicians in service probably did not bother to renew their license to practice each July, and may wonder what they should do about it at this time. Many of them were advised just to let the matter ride until they should be discharged. Such physicians may now obtain their renewal by writing Mr. H. W. Greffe, Department of Licensure and Registration, State Department of Health, Des Moines 19, Iowa, and learning from him the amount due to bring the license up to date. The State Department of Health endeavored to get permission from the state to waive the renewal fee for the years the man was in service, but this has not been done, and so the physician will pay \$1.00 a year from the time of his last payment, and thus renew his license to practice medicine in Iowa.

MEDICAL OFFICERS

Please notify the Journal whenever your address changes. This will assure prompt delivery of each issue and will alleviate much of the present confusion in maintaining an accurate mailing list.

President's Page

THE SPEAKERS BUREAU

The Speakers Bureau during the past two years has felt it a hardship to request our members to present programs at meetings which required many miles of travel because of the gasoline rationing, as well as the extra drain upon the physicians' time and energy. However, with the elimination of gas rationing and the return of many men to civilian practice, the Bureau will again be glad to assist any group desiring special programs. Address your requests to Dr. George E. Mountain, Chairman, 505 Bankers Trust Building, Des Moines 9, Iowa.

Too little has been "heard" about the Bureau's radio programs. Do you take time out to listen to these programs? Have you called your patient's attention to them? The programs are well prepared upon timely subjects. They are especially important to mothers and are broadcast at a time many of them can take time out to listen. If you don't think they will listen, place a small radio in your reception room some Wednesday or Thursday afternoon and turn it on at the program hour. You will be surprised at the interest your patients will manifest.

These programs are the beginning of the Society's use of the radio to tell the people of Iowa more about health and the medical profession. Why not try a little broadcasting of your own concerning these programs? It will pay big dividends.

R. D. Bernard, M.D.

President, Iowa State Medical Society.

Roster of Iowa Physicians in Military Service

As of September 21, 1945

Adair County

Cornell D. D., Greenfield (APO 41, San Francisco, Cal.) Lt. Col., A.U.S.
Gantz, A. J., Greenfield (Denver, Colo.) Capt., A.U.S.

Adams County

Bain, C. L., Corning (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Willett, W. J., Carbon Capt., A.U.S.

Allamakee County

Hogan, P. W., Waukon
Ivens, M. H., Waukon (Miami Beach, Fla.) Capt., A.U.S.
Kiesau, M. F., Postville (APO 513, New York, N. Y.) Major, A.U.S.
Rominger, C. R., Waukon (Camp Claiborne, La.) A.U.S.

Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.) Major, U.S.P.H.S.
Edwards, R. R., Centerville (APO 513, New York, N. Y.) Major, A.U.S.
Huston, M. D., Centerville (Santa Fe, N. Mex.) Capt., A.U.S.

Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) Major, A.U.S.

Benton County

Koontz, L. W., Vinton (APO 7, San Francisco, Cal.) Capt., A.U.S.
Senfeld, Sidney, Belle Plaine

Black Hawk County

Bickley, D. W., Waterloo (APO New York, N. Y.) Capt., A.U.S.
Bickley, J. W., Waterloo (APO 956, San Francisco, Cal.) Capt., A.U.S.
Butts, J. H., Waterloo (Galveston, Texas) Comdr., U.S.N.R.
Cooper, C. N., Waterloo (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
Ericsson, M. G., Cedar Falls (Camp Berkeley, Tex.) Capt., A.U.S.
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) Capt., A.U.S.
Henderson, L. J., Cedar Falls (APO 782, New York, N. Y.) Major, A.U.S.
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) Capt., A.U.S.
Ludwick, A. L., Waterloo (Abilene, Texas) Major, A.U.S.
Marquis, F. M., Waterloo (APO 513, New York, N. Y.) Capt., A.U.S.
O'Keefe, P. T., Waterloo (APO 79, New York, N. Y.) Capt., A.U.S.
Paige, R. T., LaPorte City (Corpus Christi, Texas) Comdr., U.S.N.R.
Rohlf, E. L., Jr., Waterloo (APO 230, New York, N. Y.) Major, A.U.S.
Seibert, C. W., Waterloo (Colorado Springs, Colo.) Major, A.U.S.
Smith, E. E., Waterloo (Keesler Field, Miss.) Major, A.U.S.
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) Major, A.U.S.
Trunnell, T. L., Waterloo (Farris Island, S. Car.) Lt. U.S.N.R.

Boone County

Brewster, E. S., Boone (APO 446, New York, N. Y.) Major, A.U.S.
Healy, M. J., Boone (Fort Sill, Okla.) Capt., A.U.S.
Shane, R. S., Pilot Mound (Des Moines, Ia.) Lt. Col., A.U.S.

Bremer County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Rathe, H. W., Waverly (APO 209, New York, N. Y.) Lt. Col., A.U.S.

Buchanan County

Barton, J. C., Independence (APO 519-A, New York, N. Y.) Lt. Col., A.U.S.
Hersey, N. L., Independence (Astoria, Ore.) Lt. Comdr., U.S.N.R.
Leehey, P. J., Independence (APO 244, Unit 3, San Francisco, Cal.) Major, A.U.S.
Loeck, J. F., Aurora (APO 887, New York, N. Y.) Capt., A.U.S.

Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) Capt., A.U.S.
Brecher, P. W., Storm Lake (APO 91, New York, N. Y.) Lt. Col., A.U.S.
Hansen, R. R., Storm Lake Lt., U.S.N.R.
Mailliard, R. E., Storm Lake Lt. Col., A.U.S.
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) Capt., A.U.S.
Witte, H. J., Marathon (APO 350, New York, N. Y.) Major, A.U.S.

Butler County

Andersen, B. V., Greene (Pensacola, Fla.) Lt., U.S.N.R.
James, R. A., Allison (Mare Island, Cal.) Lt. Col., A.U.S.
Rolf, F. O., Parkersburg (Springfield, Mo.) 1st Lt., A.U.S.

Calhoun County

Grinley, A. V., Rockwell City (APO 350, New York, N. Y.) Capt., A.U.S.
Hobart, F. W., Lake City (APO 562, New York, N. Y.) Capt., A.U.S.

McVay, M. J., Lake City (Waco, Texas) Capt., A.U.S.
Peek, L. H., Lake City (Camp Carson, Colo.) Capt., A.U.S.
Stevenson, W. W., Rockwell City (Seattle, Wash.) Lt. Comdr., U.S.N.R.
Weyer, J. J., Lohrville (APO 465, New York, N. Y.) Capt., A.U.S.

Carroll County

Anneberg, A. R., Carroll (APO 70, San Francisco, Cal.) Capt., A.U.S.
Anneberg, W. A., Carroll (APO 367, New York, N. Y.) Capt., A.U.S.
Cochran, J. L., Carroll (Gulfport, Miss.) Capt., A.U.S.
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
Freedland, Maurice, Coon Rapids Lt., U.S.N.R.
Morrison, J. R., Carroll (APO New York) Major, A.U.S.
Morrison, R. B., Carroll (APO 557, New York, N. Y.) Capt., A.U.S.
Pascoe, P. L., Carroll (Bowman Field, Ky.) Capt., A.U.S.
Scannell, R. C., Carroll (Denver, Colo.) Capt., A.U.S.
Tindall, R. N., Coon Rapids (Camp Grant, Ill.) Major, A.U.S.
Wyatt, M. R., Manning (Stuttgart, Ark.) Capt., A.U.S.

Cass County

Egbert, D. S., Atlantic (Ft. Leavenworth, Kan.) Major, A.U.S.
Ergebnight, W. V., Atlantic (APO 331, San Francisco, Cal.) Capt., A.U.S.
Needles, R. M., Atlantic (APO 131, New York, N. Y.) Capt., A.U.S.
Peterson, M. T., Atlantic (Charleston, S. Car.) Capt., A.U.S.
Schiff, Joseph, Anita (Walla Walla, Wash.) 1st Lt., A.U.S.

Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.) Lt., U.S.N.R.
Mosher, M. L., West Branch (APO 560, New York, N. Y.) Capt., A.U.S.
O'Neal, H. E., Tipton (Minneapolis, Minn.) Lt. Col., A.U.S.

Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.) Major, A.U.S.
Egloff, W. C., Mason City (Omaha, Nebr.) Capt., A.U.S.
Fitzpatrick, M. R., Mason City (Ft. Riley, Kan.) 1st Lt., A.U.S.
Flickinger, R. R., Mason City (Memphis, Tenn.) Capt., A.U.S.
Hale, A. E., Dougherty (Atlanta, Ga.) Capt., A.U.S.
Harris, R. H., Mason City (Dyersburg, Tenn.) Capt., A.U.S.
Harrison, G. E., Mason City Col., A.U.S.
Houlahan, J. E., Mason City (APO 841, New Orleans, La.) Capt., A.U.S.
Lannon, J. W., Clear Lake (APO 339, New York, N. Y.) Capt., A.U.S.
Long, D. L., Mason City (APO 603, Miami, Fla.) Capt., A.U.S.
Morgan, P. W., Mason City (APO 89, New York, N. Y.) Capt., A.U.S.
Mullen, L. M., Mason City Capt., A.U.S.
Sternhill, Irving, Mason City (Ayer, Mass.) Capt., A.U.S.
Tice, G. L., Mason City (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
Tice, W. A., Mason City (Ft. Eustis, Va.) Lt. (jg), U.S.N.R.
Woodward, E. R., Mason City (Chicago, Ill.) Lt., U.S.N.R.

Cherokee County

Bullock, G. D., Washta (APO 17583, New York, N. Y.) Capt., A.U.S.
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) Major, A.U.S.
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) Capt., A.U.S.

Chickasaw County

Caulfield, J. D., New Hampton (APO 178, New York, N. Y.) Major, A.U.S.
Murphey, A. L., Fredericksburg (Ft. Leavenworth, Kan.) Capt., A.U.S.
O'Connor, E. C., New Hampton (Redmond, Ore.) Capt., A.U.S.
Richmond, P. C., New Hampton Major, A.U.S.

Clarke County

Armitage, G. I., Murray (APO 629, New York, N. Y.) Capt., A.U.S.

Clay County

Edington, F. D., Spencer (Tacoma, Wash.) Col., A.U.S.
Jones, C. C., Spencer (Farragut, Idaho) Lt. Comdr., U.S.N.R.
King, D. H., Spencer (Camp Davis, N. Car.) Capt., A.U.S.

Clayton County

Glesne, O. G., Monona (Knoxville, Iowa) Capt., A.U.S.
Rhombert, E. B., Guttenberg (APO 584, New York, N. Y.) Lt. (jg), U.S.N.R.

Clinton County

Amesbury, H. A., Clinton (APO 218, New York, N. Y.) Major, A.U.S.
Burke, J. C., Clinton (Great Bend, Kan.) A.U.S.
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) Capt., A.U.S.

Hill, D. E., Clinton (APO 9787, New York, N. Y.)...Capt., A.U.S.
 King, R. C., Clinton (Clinton, Iowa).....Capt., A.U.S.
 Lenaghan, R. T., Clinton (Olathe, Kans.)...Lt. Comdr., U.S.N.R.
 Normant, J. E., Clinton (San Bruno, Cal.)...Comdr., U.S.N.R.
 O'Donnell, J. E., Clinton (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Riedesel, E. V., Wheatland (Fort Douglas, Utah)
 Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.)...Capt., A.U.S.
 Snyder, D. C., De Witt (APO 520, New York, N. Y.)...Capt., A.U.S.
 Spiegel, I. J., Clinton (Galesburg, Ill.).....Capt., A.U.S.
 Van Epps, E. F., Clinton (APO 9921, New York, N. Y.).....Capt., A.U.S.
 Waggoner, C. V., Clinton (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Wells, L. L., Clinton (APO 562, New York, N. Y.)...Capt., A.U.S.

Crawford County

Fee, C. H., Denison (APO 696, New York, N. Y.)...Major, A.U.S.
 Grau, A. H., Denison (Oceanside, Cal.)...Lt. Comdr., U.S.N.R.
 Maire, E. J., Vail (Humphrey, Nebr.).....Capt., A.U.S.
 Wetrich, M. F., Manilla (Topeka, Kan.).....Capt., A.U.S.

Dallas-Guthrie Counties

Butterfield, E. T., Dallas Center (Palm Springs, Cal.).....1st Lt., A.U.S.
 Byrnes, A. W., Guthrie Center (Fort Custer, Mich.)...Major, A.U.S.
 Fail, C. S., Adel (Fleet PO, San Francisco, Cal.)...Lt. U.S.N.R.
 Margolin, J. M., Perry (APO 350, New York, N. Y.).....Capt., A.U.S.
 McGilvra, R. I., Guthrie Center (Bethesda, Md.)...Lt., U.S.N.R.
 Mullmann, A. J., Adel (APO 565, San Francisco, Cal.).....Capt., A.U.S.
 Nicoll, C. A., Panora (APO 50003, San Francisco, Cal.).....Major, A.U.S.
 Osborn, C. R., Dexter (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Todd, D. W., Guthrie Center.....Capt., A.U.S.
 Wilke, F. A., Woodward.....Capt., A.U.S.

Davis County

Fenton, C. D., Bloomfield (APO 5253, New York, N. Y.).....Capt., A.U.S.
 Gilfillan, G. W., Bloomfield.....Lt. Comdr., U.S.N.R.

Decatur County

Gamet, E. E., Lamoni.....Major, A.U.S.

Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.).....Capt., A.U.S.
 Clark, R. E., Manchester (APO 419, New York, N. Y.).....Capt., A.U.S.

Des Moines County

Eigenfeld, M. L., Burlington (Cleveland, Ohio)...1st Lt., A.U.S.
 Heitzman, P. O., Burlington (Fort Lewis, Wash.)...Capt., A.U.S.
 Jenkins, G. D., Burlington (West Point, N. Y.)...Col., A.U.S.
 Lohmann, C. J., Burlington (APO 1055, San Francisco, Cal.).....Lt. Col., A.U.S.
 McKitterick, J. C., Burlington (Hamilton, R. I.).....Comdr., U.S.N.R.
 Moerke, R. F., Burlington (APO 565, San Francisco, Cal.).....Major, A.U.S.
 Sage, E. C., Burlington (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

Dickinson County

Buchanan, J. J., Milford (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Henning, G. G., Milford (San Antonio, Texas)...Major, A.U.S.
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.)...Capt., A.U.S.
 Rodawig, D. F., Spirit Lake (Topeka, Kan.).....Major, A.U.S.

Dubuque County

Anderson, E. E., Dubuque (Bradley Field, Conn.)...Capt., A.U.S.
 Conzett, D. C., Dubuque (APO 887, New York, N. Y.).....Lt. Col., A.U.S.
 Cunningham, J. C., Dubuque (Fairfield, Ohio)...Capt., A.U.S.
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.).....Major, A.U.S.
 Entringer, A. J., Dubuque (APO 41, San Francisco, Cal.).....Capt., A.U.S.
 Hall, C. B., Dubuque (APO 11331, New York, N. Y.)...Capt., A.U.S.
 Knoll, A. H., Dubuque (San Francisco, Cal.)...Major, A.U.S.
 Langford, W. R., Epworth (Miami Beach, Fla.)...Capt., A.U.S.
 Lavery, H. B., Dubuque (Washington, D. C.)...Lt. Col., A.U.S.
 Leik, D. W., Dubuque (Wichita Falls, Tex.)...Capt., A.U.S.
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.)...Capt., A.U.S.
 Olson, P. F., Dubuque (San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Painter, R. C., Dubuque (Salt Lake City, Utah)...Lt., U.S.N.R.
 Paulus, J. W., Dubuque (APO 115, New York, N. Y.).....Capt., A.U.S.
 Plankers, A. G., Dubuque.....Major, A.U.S.
 Quinn, F. P., Dubuque (New Orleans, La.).....Major, A.U.S.
 Scharle, Theodore, Dubuque (Fl. San Houston, Texas).....Capt., A.U.S.
 Schueller, C. J., Dubuque (APO 384, New York, N. Y.).....1st Lt., A.U.S.
 Sharpe, D. C., Dubuque (APO 562, New York, N. Y.).....Major, A.U.S.
 Smith, C. W., Dubuque (Shoemaker, Cal.).....Lt., U.S.N.R.
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.)...Lt. Col., A.U.S.
 Straub, J. J., Dubuque (Bethesda, Md.)...Lt. Comdr., U.S.N.R.
 Ward, D. F., Dubuque (Great Lakes, Ill.)...Lt. Comdr., U.S.N.R.

Emmet County

Clark, J. P., Estherville (APO New York, N. Y.)...Major, A.U.S.
 Collins, L. E., Estherville (APO 247, San Francisco, Cal.).....1st Lt., A.U.S.
 Miller, O. H., Estherville (Seattle, Wash.)...Lt. Comdr., U.S.N.R.

Fayette County

Gallagher, J. P., Oelwein (Peru, Indiana).....Lt., U.S.N.R.
 Henderson, W. B., Oelwein (APO 4260, San Francisco, Cal.).....Lt. Col., A.U.S.
 Sulzbach, J. F., Oelwein
 Walsh, E. W., Hawkeye (Huntington, W. Va.).....A.U.S.
 Walsh, W. E., Hawkeye (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

Floyd County

Baltzell, W. C., Charles City (APO 2, New York, N. Y.).....Major, A.U.S.
 Flater, N. C., Floyd (APO 350, New York, N. Y.)...Capt., A.U.S.
 Huber, R. H., Charles City.....1st Lt., A.U.S.
 Knight, R. A., Rockford (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Mackie, D. G., Charles City.....Capt., A.U.S.
 Magdick, Carl, Charles City (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Miner, J. B., Jr., Charles City (San Diego, Cal.)...Lt., U.S.N.R.
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.).....Capt., A.U.S.

Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.)...1st Lt., A.U.S.
 Hedgecock, L. E., Hampton (Camp Lejeune, N. Car.).....Lt. Comdr., U.S.N.R.
 Randall, W. L., Hampton (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Walton, S. G., Hampton (APO New York, N. Y.)...Capt., A.U.S.

Fremont County

Kerr, W. H., Hamburg (APO 926, San Francisco, Cal.).....Capt., A.U.S.
 Marrs, W. D., Tabor (Sioux Falls, S. D.).....Capt., A.U.S.
 Powell, R. A., Farragut (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Wanamaker, A. R., Hamburg (APO 729, Seattle, Wash.).....Major, A.U.S.

Greene County

Cartwright, F. P., Grand Junction (APO 511, New York, N. Y.).....Capt., A.U.S.
 Castles, W. A., Rippey (APO 958, San Francisco, Cal.).....Major, A.U.S.
 Jongewaard, A. J., Jefferson (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Limburg, J. I., Jr., Jefferson (APO 927, San Francisco, Cal.).....Major, A.U.S.
 Lohr, P. E., Churdan (Cleveland, Ohio).....Lt., U.S.N.R.

Grundy County

Cullison, R. M., Dike (Fort Howard, Md.).....Major, A.U.S.
 Rose, J. E., Grundy Center (Fleet PO, New York, N. Y.).....Lt. Comdr., U.S.N.R.

Hamilton County

Buxton, O. C., Webster City.....Capt., A.U.S.
 Howar, B. F., Jewell (San Antonio, Texas)...Major, A.U.S.
 James, D. W., Kamrar (APO 464, New York, N. Y.).....Capt., A.U.S.
 Lewis, W. B., Webster City (APO 383, New York, N. Y.).....Major, A.U.S.
 Mooney, F. P., Jewell (APO 339, New York, N. Y.)...Capt., A.U.S.
 Paschal, G. A., Williams (Camp Crowder, Mo.)...Capt., A.U.S.
 Patterson, R. A., Webster City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 Ptacek, J. L., Webster City (APO 140, New York, N. Y.).....Capt., A.U.S.
 Schrader, M. A., Webster City (Topeka, Kan.)...1st Lt., A.U.S.

Hancock-Winnebago Counties

Dulmes, A. H., Klemme (APO 782, New York, N. Y.).....Capt., A.U.S.
 Eller, L. W., Kanawha (APO 302, New York, N. Y.).....Capt., A.U.S.
 Irish, T. J., Forest City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Shaw, D. F., Britt (APO 334, San Francisco, Cal.)...Major, A.U.S.
 Thomas, C. W., Forest City (APO 519, New York, N. Y.).....Major, A.U.S.

Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.)...Lt., U.S.N.R.
 Houlihan, F. W., Ackley (APO 860, New York, N. Y.).....1st Lt., A.U.S.
 Jansonius, J. W., Eldora.....Capt., A.U.S.
 Johnson, R. J., Iowa Falls (APO 514, New York, N. Y.).....Capt., A.U.S.
 Johnson, W. A., Alden (Orlando, Fla.).....Capt., A.U.S.
 Steenrod, E. J., Iowa Falls.....Lt., U.S.N.R.
 Todd, V. S., Eldora (APO 70, San Francisco, Cal.)...Capt., A.U.S.

Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Ord, Cal.)...Capt., A.U.S.
 Burbridge, G. E., Logan (APO 511, New York, N. Y.)...Major, A.U.S.
 Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.)...Capt., A.U.S.
 Heise, C. A., Jr., Missouri Valley (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Tamsieca, F. X., Missouri Valley (APO 562, New York, N. Y.)...Capt., A.U.S.

Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.)...Major, A.U.S.
 Cogan, Samuel, Mt. Pleasant
 Dwankowski, Carl, Mt. Pleasant (APO 511, New York, N. Y.)...Major, A.U.S.
 Gloeckler, B. B., Mount Pleasant (APO 9768, New York, N. Y.)...Capt., A.U.S.
 Hartley, B. D., Mount Pleasant (Galesburg, Ill.)...Capt., A.U.S.
 Mesgorden, W. H., Mount Pleasant (Ogden, Utah)...Capt., A.U.S.
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.)...Major, A.U.S.

Howard County

Buresh, Abner, Lime Springs (Oceanside, Cal.)...Lt. Comdr., U.S.N.R.
 Nierling, P. A., Cresco (APO 43, San Francisco, Cal.)...Capt., A.U.S.

Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.)...Capt., A.U.S.
 Coddington, J. H., Humboldt (Oklahoma City, Okla.)...Capt., A.U.S.

Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.)...Capt., A.U.S.
 Martin, J. W., Holstein (Albany, Ga.)...Capt., A.U.S.

Iowa County

Geiger, U. S., North English (San Diego, Cal.)...Lt. Comdr., U.S.N.R.
 McDaniel, J. D., Marenzo (APO 1010, San Francisco, Cal.)...Capt., A.U.S.
 Miller, D. F., Williamsburg (San Diego, Cal.)...Lt., U.S.N.R.

Jackson County

Bausch, R. G., Bellevue (APO 251, New York, N. Y.)...Capt., A.U.S.
 Skelley, P. B., Jr., Maquoketa (APO 247, San Francisco, Cal.)...1st Lt., A.U.S.
 Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.)...Major, A.U.S.

Jasper County

Doake, Clarke, Newton...1st Lt., A.U.S.
 Minkel, R. M., Newton (APO New York, N. Y.)...Lt. Col., A.U.S.
 Ritchey, S. J., Newton...Lt. Col., A.U.S.

Jefferson County

Castell, J. W., Fairfield (Ft. Sam Houston, Texas)...Capt., A.U.S.
 Frey, Harry, Fairfield (Norfolk, Va.)...Lt. Comdr., U.S.N.R.
 Gittler, Ludwig, Fairfield...Lt. Col., A.U.S.
 Graber, H. E., Fairfield (APO 18642, San Francisco, Cal.)...Major, A.U.S.
 Taylor, I. C., Fairfield (Washington, D. C.)...1st Lt., A.U.S.

Johnson County

Agnew, J. W., Iowa City (APO 17604, New York, N. Y.)...Capt., A.U.S.
 Albert, S. M., Iowa City (APO 9622, New York, N. Y.)...1st Lt., A.U.S.
 Allen, J. H., Iowa City (Scott Field, Ill.)...Major, A.U.S.
 Anderson, E. N., Iowa City (APO 647, New York, N. Y.)...Major, A.U.S.
 Boyd, E. J., Iowa City (APO 140, New York, N. Y.)...Capt., A.U.S.
 Brinkhaus, K. M., Iowa City (APO 4672, San Francisco, Cal.)...Lt. Col., A.U.S.
 Bunge, R. G., Iowa City (Orlando, Fla.)...Capt., A.U.S.
 Callahan, G. D., Iowa City (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Cobb, E. A., Iowa City (APO 14987, San Francisco, Cal.)...1st Lt., A.U.S.
 Coburn, F. E., Iowa City (Toronto, Canada)...Capt., R.C.A.
 Cooper, W. K., Iowa City (Mitchell Field, N. Y.)...Capt., A.U.S.
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.)...Capt., A.U.S.
 Ciddle, A. W., Iowa City (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Dörner, R. A., Iowa City (APO 230, New York, N. Y.)...Capt., A.U.S.
 Elmquist, H. S., Iowa City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.
 Emmons, M. B., Iowa City (Camp Bowie, Texas)...Capt., A.U.S.
 Field, Grace E., Iowa City (APO 394, New York, N. Y.)...Major, U.S.P.H.S.
 Flax, Ellis, Iowa City (APO 758, New York, N. Y.)...1st Lt., A.U.S.
 Flynn, J. E., Iowa City (Hot Springs, Ark.)...Major, A.U.S.
 Fourt, A. S., Iowa City (APO 34, New York, N. Y.)...Lt. Col., A.U.S.
 Francis, N. L., Iowa City (Annapolis, Md.)...Lt. (jg), U.S.N.R.
 Galinsky, L. J., Oakdale (APO 433, New York, N. Y.)...Capt., A.U.S.
 Garlinghouse, R. O., Iowa City (Ft. Riley, Kan.)...Lt. Col., A.U.S.
 Hartung, Walter, Iowa City (Camp Carson, Colo.)...Capt., A.U.S.
 Hessin, A. L., Iowa City (APO 472, New York, N. Y.)...Major, A.U.S.
 Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.)...Comdr., U.S.N.R.
 January, L. E., Iowa City (Pyote, Texas)...Major, A.U.S.

Kanealy, J. F., Iowa City (APO 928, San Francisco, Cal.)...1st Lt., A.U.S.
 Keislar, H. D., Iowa City (Washington, D. C.)...Capt., A.U.S.
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.)...Lt. U.S.N.R.
 Laubscher, J. H., Iowa City (Ft. Benning, Ga.)...1st Lt., A.U.S.
 Longwell, F. H., Iowa City (Daytona, Fla.)...Major, A.U.S.
 Moreland, F. B., Iowa City (Maxwell Field, Ala.)...1st Lt., A.U.S.
 Nagffy, S. F., Iowa City (Fleet PO, New York, N. Y.)...Lt., U.S.N.R.
 Newman, R. W., Iowa City (Jacksonville, Fla.)...Lt. Comdr., U.S.N.R.
 Parkin, G. L., Iowa City (Mountain Home, Idaho) 1st Lt., A.U.S.
 Paulus, E. W., Iowa City (APO 34, New York, N. Y.)...Lt. Col., A.U.S.
 Petersen, V. W., Iowa City (APO 689, New York, N. Y.)...Col., A.U.S.
 Ringrose, E. J., Iowa City
 Sells, R. L., Jr., Iowa City (Palmdale, Cal.)...Capt., A.U.S.
 Smith, H. F., Iowa City (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 †Springer, E. W., Iowa City (APO 678, New York, N. Y.)...Capt., A.U.S.
 Stadler, H. E., Iowa City (Washington, D. C.)...1st Lt., A.U.S.
 Staggs, W. A., Iowa City...Major, A.U.S.
 Stephens, R. L., Iowa City (Orlando, Fla.)...Capt., A.U.S.
 Stump, R. B., Iowa City (Denver, Colo.)...Capt., A.U.S.
 Titus, E. L., Iowa City (Belmont, Mass.)...Col., A.U.S.
 Trapasso, T. J., Iowa City (APO 520, New York, N. Y.)...Capt., A.U.S.
 Trussell, R. E., Iowa City (APO 75, San Francisco, Cal.)...Capt., A.U.S.
 Voelker, C. A., Jr., Iowa City (Eglin Field, Fla.)...Capt., A.U.S.
 Ward, R. H., Iowa City (Jacksonville, Fla.)...Lt. Comdr., U.S.N.R.
 Weatherly, H. E., Iowa City (APO 72, San Francisco, Cal.)...Capt., A.U.S.
 Wollmann, W. W., Iowa City (Louisville, Ky.)...1st Lt., A.U.S.
 Ziffen, S. E., Iowa City (Springfield Mo.)...1st Lt., A.U.S.

Junior Members

†Adams, M. P., Iowa City (Fleet PO, San Francisco, Cal.)...Lt. (jg), U.S.N.R.
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.)...A.U.S.
 Ball, A. L., Iowa City (Camp Polk, La.)...Major, A.U.S.
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.)...Capt., A.U.S.
 Black, N. M., Iowa City (APO New York, N. Y.)...Capt., A.U.S.
 Blair, J. D., Iowa City (APO San Francisco, Cal.)...Major, A.U.S.
 Boyd, R. J., Iowa City (Spokane, Wash.)...Capt., A.U.S.
 Brintnall, E. S., Iowa City (APO New York, N. Y.)...Major, A.U.S.
 Burr, S. P., Iowa City (APO San Francisco, Cal.)...1st Lt., A.U.S.
 Carney, R. G., Iowa City (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Connole, J. F., Iowa City (Camp Bowie, Texas)...1st Lt., A.U.S.
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.)...1st Lt., A.U.S.
 Coulson, F. H., Iowa City (APO New York, N. Y.)...Capt., A.U.S.
 Decker, C. E., Iowa City (Oklahoma City, Okla.)...1st Lt., A.U.S.
 Donnelly, B. A., Iowa City (Santa Barbara, Cal.)...Major, A.U.S.
 Ehrenhaft, J. L., Iowa City (APO New York, N. Y.)...Capt., A.U.S.
 Englerth, F. L., Iowa City (APO San Francisco, Cal.)...Capt., A.U.S.
 Freiherr, M., Iowa City (Jefferson Barracks, Mo.)...A.U.S.
 Glassman, A. L., Iowa City (Palm Springs, Cal.)...1st Lt., A.U.S.
 Hamilton, H. E., Iowa City (Chicago, Ill.)...1st Lt., A.U.S.
 Harms, G. E., Iowa City (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 Hendricks, A. B., Iowa City (Washington, D. C.)...Lt. Comdr., U.S.N.
 Hovis, Wm., Iowa City (Fleet PO, San Francisco, Cal.)...Lt. (jg), U.S.N.R.
 Ide, L. W., Iowa City (Fort Warren, Wyo.)...1st Lt., A.U.S.
 Jacobs, C. A., Iowa City (APO New York, N. Y.)...Major, A.U.S.
 Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.)...1st Lt., A.U.S.
 Keil, P. G., Iowa City (Sioux City, Iowa)...1st Lt., A.U.S.
 Kelberg, M. R., Iowa City (Alameda, Cal.)...Lt., U.S.N.R.
 Keleher, M. F., Iowa City (Great Lakes, Ill.)...Lt. (jg), U.S.N.R.
 Kugler, F. E., Iowa City (Fort Warren, Wyo.)...Capt., A.U.S.
 Lowry, F. C., Iowa City (Sioux Falls, S. D.)...1st Lt., A.U.S.
 McCann, J. P., Iowa City (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 McQuiston, W. O., Iowa City (APO San Francisco, Cal.)...Capt., A.U.S.
 Moon, B. H., Iowa City
 Moon, R. E., Iowa City (APO New York, N. Y.)...1st Lt., A.U.S.
 Odell, Lester, Iowa City (Pensacola, Fla.)...Lt. (jg), U.S.N.R.
 Phillips, R. M., Iowa City (San Francisco, Cal.)...1st Lt., A.U.S.
 Fulliam, R. L., Iowa City (APO 350, New York, N. Y.)...Major, A.U.S.
 Randall, C. G., Iowa City
 Randall, R. G., Iowa City (Waterloo, Iowa)...Capt., A.U.S.
 Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.)...1st Lt., A.U.S.
 Russin, L. A., Iowa City (Fort Blanding, Fla.)...Capt., A.U.S.
 Saar, J. L., Iowa City (APO New York, N. Y.)...Major, A.U.S.
 Sawtelle, W. W., Iowa City...Lt., U.S.N.R.
 Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 Shand, J. A., Iowa City (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 Shapiro, S. I., Iowa City
 Simpson, F. E., Iowa City (Camp Grant, Ill.)...A.U.S.
 Skewis, J. E., Iowa City (Corona, Cal.)...Lt. Comdr., U.S.N.R.
 Skouge, O. T., Iowa City

Towle, R. A., Iowa City (Jacksonville, Fla.)..Lt. Comdr., U.S.N.R.
Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.
Watters, V. G., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.
Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.
Williams, L. A., Iowa City (Treasure Island, Cal.)..1st Lt., A.U.S.
Willumsen, H. C., Iowa City (Denver, Colo.).....Capt., A.U.S.
Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.
Yetter, W. L., Iowa City (APO New York, N. Y.)..Major, A.U.S.
Zahrt, N. E., Iowa City (Keesler Field, Miss.).....Capt., A.U.S.
Zimmerman, H. A., Iowa City (Santa Ana, Cal.)..1st Lt., A.U.S.

Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.)..Capt., A.U.S.
Engelmann, A. T., What Cheer (Camp Polk, La.)..Capt., A.U.S.
Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.
Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.

Kossuth County

Clapsaddle, D. W., Burt (Manhattan, Kan.).....Capt., A.U.S.
Corbin, R. L., Luverne (Des Moines, Iowa).....Capt., A.U.S.
Kenefick, J. N., Algona (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
Williams, R. L., Lakota (Iowa City, Iowa).....Lt. Comdr., U.S.N.R.

Lee County

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.
Cleary, H. G., Fort Madison (Ft. Benning, Ga.).....Capt., A.U.S.
Cooper, R. E., Keokuk (APO 565, San Francisco, Cal.) Capt., A.U.S.
Johnstone, A. A., Keokuk (APO 942, Seattle, Wash.)..Col., A.U.S.
McKee, T. L., Keokuk (Miami Beach, Fla.).....Major, A.U.S.
Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.)..Major, A.U.S.
Rankin, J. R., Keokuk (Memphis, Tenn.).....Lt. Comdr., U.S.N.R.
Richmond, A. C., Fort Madison (San Bruno, Cal.).....Lt. Comdr., U.S.N.R.
Steffey, F. L., Keokuk (Fort Snelling, Minn.).....Capt., A.U.S.
Younan, Thomas, Ft. Madison (APO 758, New York, N. Y.).....Capt., A.U.S.

Linn County

Andre, G. R., Lisbon (APO 90, New York, N. Y.)..Lt. Col., A.U.S.
Berney, P. W., Cedar Rapids (Camp Crowder, Mo.).....Major, A.U.S.
Block, W. M., Cedar Rapids.....Capt., A.U.S.
Chapman, R. M., Cedar Rapids (Chicago, Ill.).....Major, A.U.S.
Coughlan, V. H., Coggon (Fort Snelling, Minn.).....A.U.S.
Courter, W. O., Springville (APO 464, New York, N. Y.).....Major, A.U.S.
Downing, J. S., Cedar Rapids (Colorado Springs, Colo.).....Lt. Col., A.U.S.
Dunn, F. C., Cedar Rapids (Winfield, Kan.).....Major, A.U.S.
Gearhart, Merriam, Springville (APO 513, New York, N. Y.).....Major, A.U.S.
Gerstman, Herbert, Marion (APO 862, New York, N. Y.).....Capt., A.U.S.
Halpin, L. J., Cedar Rapids (APO 957, San Francisco, Cal.).....Major, A.U.S.
Hecker, J. T., Cedar Rapids (APO 408, New York, N. Y.).....Capt., A.U.S.
Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.).....Lt. Col., A.U.S.
Keith, J. J., Marion (Menlo Park, Cal.).....Major, A.U.S.
Kieck, E. G., Cedar Rapids (Norman, Okla.).....Comdr., U.S.N.R.
Kruckenberg, W. G., Mount Vernon (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
Ledham, C. L., Springville (Camp Campbell, Ky.)..Col., A.U.S.
Locher, R. C., Cedar Rapids (APO 230, New York, N. Y.).....Lt. Col., A.U.S.
MacDougall, R. F., Cedar Rapids (APO 9057, New York, N. Y.).....Capt., A.U.S.
McConkie, E. B., Cedar Rapids (Hines, Ill.).....Major, A.U.S.
McQuiston, J. S., Cedar Rapids (Fort Warren, Wyo.).....Lt. Col., A.U.S.
Meffert, C. B., Cedar Rapids (Ft. Benjamin Harrison, Ind.).....Lt. Col., A.U.S.
Murray, E. S., Cedar Rapids (APO 512 New York, N. Y.).....Lt. Col., A.U.S.
Netolicky, R. Y., Cedar Rapids (Hawthorne, Nev.).....Lt. Comdr., U.S.N.R.
Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.).....1st Lt., A.U.S.
Noe, C. A., Cedar Rapids (Hot Springs, Ark.).....Major, A.U.S.
Parke, John, Cedar Rapids.....Major, A.U.S.
Proctor, R. D., Cedar Rapids (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
Rieniets, J. H., Cedar Rapids, (Charleston, S. Car.).....Lt. Comdr., U.S.N.R.
Sedlacek, L. B., Cedar Rapids (APO 244, San Francisco, Cal.).....Col., A.U.S.
Smrha, J. A., Cedar Rapids (Topeka, Kan.).....Capt., A.U.S.
Stansbury, J. R., Cedar Rapids (Fort Lewis, Wash.).....Capt., A.U.S.
Sulek, A. E., Cedar Rapids (APO 244, San Francisco, Cal.).....Lt. Col., A.U.S.
Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.).....Major, A.U.S.
Yavorsky, W. D., Cedar Rapids (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.

Louisa County

DeYarman, K. T., Morning Sun (San Antonio, Texas).....Capt., A.U.S.
Tandy, R. W., Morning Sun (Oakland, Cal.).....Lt. Comdr., U.S.N.R.

Lucas County

Lister, K. E., Chariton (Fort Snelling, Minn.).....A.U.S.

Lyon County

Cook, S. H., Rock Rapids (Lordsburg, N. Mex.)...Major, A.U.S.
Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Oflag 64, Germany).....Capt., A.U.S.
Moriarity, F. J., Rock Rapids (Corvallis, Ore.)....Capt., A.U.S.

Madison County

Boden, H. N., Truro (Fresno, Cal.).....Capt., A.U.S.
Chesnut, P. F., Winterset (APO 411, New York, N. Y.).....Capt., A.U.S.
Veltman, J. F., Winterset (APO 957, San Francisco, Cal.).....Capt., A.U.S.
Wicks, R. L., Winterset (APO 204, New York, N. Y.).....Lt. Col., A.U.S.

Mahaska County

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.).....Lt. Col., A.U.S.
Bos, H. C., Oskaloosa (APO 758, New York, N. Y.).....Major, A.U.S.
Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
Clark, G. H., Oskaloosa (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
Gillett, R. M., Oskaloosa (Fleet PO, San Francisco, Cal.).....Capt., U.S.N.
Greenlee, M. R., Oskaloosa (Port Hueneme, Cal.).....Lt. Comdr., U.S.N.R.
Hibbs, R. E., Oskaloosa.....Major, A.U.S.
Keohen, G. F., Oskaloosa (APO 4299, San Francisco, Cal.).....Major, A.U.S.
Lemon, K. M., Oskaloosa (APO 637, New York, N. Y.).....Capt., A.U.S.
Reiley, R. E., Oskaloosa (APO 502, San Francisco, Cal.).....Major, A.U.S.
Shurts, J. J., Oskaloosa (Fort Mason, Cal.).....Capt., A.U.S.
Zager, L. L., Oskaloosa (APO 436, New York, N. Y.).....Capt., A.U.S.

Marion County

Mater, D. A., Knoxville (Lincoln, Neb.).....Major, A.U.S.
Ralston, F. P., Knoxville (Indio, Cal.).....Capt., A.U.S.
Schiek, C. M., Knoxville.....Lt. Comdr., U.S.N.R.
Schroeder, M. C., Pella (Camp Livingston, La.).....Capt., A.U.S.
Williams, D. B., Knoxville.....Capt., A.U.S.

Marshall County

Carpenter, R. C., Marshalltown (APO 678 New York, N. Y.).....Capt., A.U.S.
Marble, E. J., Marshalltown (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
Marble, W. P., Marshalltown (Colorado Springs, Colo.).....Major, A.U.S.
Meyer, M. G., Marshalltown (APO 513, New York, N. Y.).....Major, A.U.S.
Noonan, J. J., Marshalltown (Fort Jackson, S. Car.).....Lt. Col., A.U.S.
Pheips, R. E., State Center (APO 7, San Francisco, Cal.).....Capt., A.U.S.
Stegman, J. J., Marshalltown (APO 520, New York, N. Y.).....Major, A.U.S.
Wells, R. C., Marshalltown (Gowen Field, Idaho).....Capt., A.U.S.
Wolfe, O. D., Marshalltown (APO 938, Minneapolis, Minn.).....Capt., A.U.S.
Wolfe, R. M., Marshalltown (Mirimar, Cal.).....Lt., U.S.N.R.

Mills County

DeYoung, W. A., Glenwood (APO 228, New York, N. Y.).....Capt., A.U.S.
Kuitert, J. H., Glenwood (St. Cloud, Minn.).....Major, A.U.S.
Magaret, E. C., Glenwood (APO 973, Minneapolis, Minn.).....Capt., A.U.S.
Shonka, T. E., Malvern (APO 403, New York, N. Y.).....Capt., A.U.S.

Mitchell County

Culbertson, R. A., St. Ansgar (APO 331, San Francisco, Cal.).....Lt. Col., A.U.S.
Moore, E. E., Osage (APO 772, New York, N. Y.)..Major, A.U.S.
Owen, W. E., Osage (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
Walker, T. G., Riceville (Hutchinson, Kan.)..Lt. Comdr., U.S.N.R.

Monona County

Almer, L. E., Moorhead (Fort Knox, Ky.).....Capt., A.U.S.
Anderson, S. N., Onawa (Great Lakes, Ill.).....Lt., U.S.N.R.
Ganzhorn, H. L., Mapleton (APO 72, San Francisco, Cal.).....Capt., A.U.S.
Gaukel, L. A., Onawa (Fort Riley, Kan.).....Capt., A.U.S.

†Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Stauch, M. O., Whiting (Fort Lewis, Wash.).....Major, A.U.S.
 Wainwright, M. T., Mapleton (Hines, Ill.).....Capt., A.U.S.
 Wolpert, P. L., Onawa (Camp Atterbury, Ind.).....Capt., A.U.S.

Monroe County

Bay, F. N., Albia.....Lt. Comdr., U.S.N.R.
 Gilliland, C. H., Albia (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.
 Heilmann, V. R., Albia (Camp Maxey, Texas).....Capt., A.U.S.
 Richter, H. J., Albia (Danville, Ill.).....Major, A.U.S.
 Smith, R. A., Albia (New Cumberland, Pa.).....Capt., A.U.S.

Montgomery County

Bastron, H. C., Red Oak (APO 951, San Francisco, Cal.).....Major, A.U.S.
 Hansen, F. A., Red Oak (Hitchcock, Texas).....Lt., U.S.N.R.
 Nelson, C. C., Red Oak (Chapel Hill, N. Car.).....Lt., U.S.N.R.
 Panzer, E. J. C., Stanton (Point Montara, Cal.).....Lt., U.S.N.R.
 Rost, G. S., Red Oak (Halstead, Kan.).....Capt., A.U.S.
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.).....Capt., A.U.S.

Muscatine County

Ady, A. E., West Liberty (Beaufort, S. Car.).....Comdr., U.S.N.R.
 Asthalter, R. W., Muscatine (Fort Meade, Md.).....1st Lt., A.U.S.
 Carlson, E. H., Muscatine (APO 901, San Francisco, Cal.).....Major, A.U.S.
 Goad, R. R., Muscatine (Memphis, Tenn.).....Comdr., U.S.N.R.
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa).....Major, A.U.S.
 Lindley, E. L., Muscatine (APO 6, San Francisco, Cal.).....Capt., A.U.S.
 Muhs, E. O., Muscatine (APO 578, New York, N. Y.).....Major, A.U.S.
 Norem, Walter, Muscatine (APO Miami, Fla.).....Capt., A.U.S.
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.).....Capt., A.U.S.
 Sywassink, G. A., Muscatine (APO 488-"Y" Forces, New York, N. Y.).....Lt. Col., A.U.S.
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.).....Lt. Col., A.U.S.

O'Brien County

Getty, E. B., Primghar (APO 153, New York, N. Y.).....Capt., A.U.S.
 Hayne, W. W., Paullina (APO 638, New York, N. Y.).....Capt., A.U.S.
 Moen, S. T., Hartley.....Lt. Col., A.U.S.

Osceola County

Kuntz, G. S., Sibley (APO 34, New York, N. Y.).....Capt., A.U.S.

Page County

Barnes, C. A., Shenandoah (APO New York, N. Y.).....Capt., A.U.S.
 Bauer, Frank, Shenandoah (APO New York, N. Y.).....A.U.S.
 Blackman, Nathan, Clarinda (Ft. Benj. Harrison, Ind.).....Major, A.U.S.
 Brossingham, E. N., Clarinda (Fort Ord, Cal.).....Major, A.U.S.
 Brush, Frederick, Shenandoah (APO New York, N. Y.).....A.U.S.
 Bunch, H. McK., Shenandoah (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Burdick, F. D., Shenandoah (Denver, Colo.).....Capt., A.U.S.
 Burnett, F. K., Clarinda (APO 777, New York, N. Y.).....Major, A.U.S.
 Rausch, G. R., Clarinda (Sioux City, Iowa).....Capt., A.U.S.
 Savage, L. W., Shenandoah (Fort Meade, Md.).....1st Lt., A.U.S.
 Schwidde, Tilford, Shenandoah (APO New York, N. Y.).....A.U.S.

Palo Alto County

Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.

Plymouth County

Bowers, C. V., LeMars (APO New York, N. Y.).....1st Lt., A.U.S.
 Fisch, R. J., LeMars (Denver, Colo.).....Capt., A.U.S.
 Foss, R. H., Remsen (Homestead, Fla.).....Capt., A.U.S.
 Wolfson, Harold, Kingsley (APO San Francisco, Cal.).....Lt. Col., A.U.S.

Pocahontas County

Blair, F. L., Jr., Fonda (San Antonio, Texas).....Lt., U.S.N.R.
 Herrick, T. G., Gilmore City (APO 218, New York, N. Y.).....Capt., A.U.S.
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.).....Capt., A.U.S.
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.).....Capt., A.U.S.
 Patterson, A. W., Fonda (Des Moines, Iowa).....Capt., A.U.S.

Polk County

Abbott, W. D., Des Moines (Great Lakes, Ill.).....Comdr., U.S.N.R.
 Anderson, N. B., Des Moines (APO 513, New York, N. Y.).....Col., A.U.S.
 Angell, C. A., Des Moines (APO 408, New York, N. Y.).....Capt., A.U.S.
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.).....Lt. Col., A.U.S.
 Barner, J. L., Des Moines (Atlanta, Ga.).....Major, A.U.S.
 Barnes, B. C., Des Moines (APO 1009, San Francisco, Cal.).....Major, A.U.S.
 Bates, M. T., Des Moines (Inyokern, Cal.).....Lt. Comdr., U.S.N.R.
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Bond, T. A., Des Moines (Shoemaker, Cal.).....Lt., U.S.N.R.
 Bone, H. C., Des Moines (Arlington, Cal.).....Major, A.U.S.

Brown, A. W., Des Moines (APO 562, New York, N. Y.).....Capt., A.U.S.
 Bruner, J. M., Des Moines (El Paso, Texas).....Major, A.U.S.
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Burgess, F. M., Des Moines (Hot Springs, Ark.).....Major, A.U.S.
 Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada).....Sqd. Leader, R.C.A.F.
 Chambers, J. W., Des Moines (APO 667, New York, N. Y.).....Capt., A.U.S.
 Chase, W. B., Jr., Des Moines (Bremerton, Wash.).....Lt. Comdr., U.S.N.R.
 Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.).....Capt., A.U.S.
 Connell, J. R., Des Moines (APO 507, New York, N. Y.).....Major, A.U.S.
 Corn, H. H., Des Moines (APO 921, San Francisco, Cal.).....Capt., A.U.S.
 Coughlan, D. W., Des Moines (APO 689, New York, N. Y.).....Major, A.U.S.
 Crowley, D. F., Jr., Des Moines (Manchester, N. H.).....Major, A.U.S.
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.).....Capt., A.U.S.
 DeCicco, Ralph, Des Moines (APO 952, San Francisco, Cal.).....Capt., A.U.S.
 Decker, H. G., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Downing, A. H., Des Moines (Clinton, Iowa).....Capt., A.U.S.
 Dushkin, M. A., Des Moines (Chicago, Ill.).....Lt. Col., A.U.S.
 Elliott, O. A., Des Moines (La Junta, Colo.).....Capt., A.U.S.
 Ellis, H. G., Des Moines (APO 710, San Francisco, Cal.).....Capt., A.U.S.
 Ervin, L. J., Des Moines (Victoria, Texas).....Lt. Col., A.U.S.
 Fleck, W. L., Des Moines (Ft. Howard, Md.).....Lt. Col., A.U.S.
 Fried, David, Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Fracasse, John, Des Moines.....1st Lt., A.U.S.
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 Gerchek, E. W., Des Moines
 Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.).....Major, A.U.S.
 Glomset, D. A., Des Moines (APO 152, New York, N. Y.).....Capt., A.U.S.
 Goldberg, Louie, Des Moines (APO 926, San Francisco, Cal.).....Capt., A.U.S.
 Gordon, A. M., Des Moines (APO 464, New York, N. Y.).....Capt., A.U.S.
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Greek, L. M., Des Moines (APO 758, New York, N. Y.).....Capt., A.U.S.
 Gurau, H. H., Des Moines (Austin, Texas).....Capt., A.U.S.
 Haines, D. J., Des Moines (APO 75, San Francisco, Cal.).....Capt., A.U.S.
 Harris, D. D., Des Moines (Gulfport, Miss.).....Lt. Comdr., U.S.N.R.
 Harris, H. L., Des Moines (Salina, Kan.).....1st Lt., A.U.S.
 Hess, John, Jr., Des Moines.....1st Lt., A.U.S.
 James, A. D., Des Moines (Fort Eustis, Va.).....Capt., U.S.N.R.
 Johnston, C. H., Des Moines (Spokane, Wash.).....Lt. Col., A.U.S.
 Kast, D. H., Des Moines (Port Stevens, Ore.).....Capt., A.U.S.
 Kelley, E. J., Des Moines (Columbus, Ohio).....Comdr., U.S.N.R.
 Kirch, W. A. W., Des Moines (Astoria, Ore.).....Lt. Comdr., U.S.N.R.
 Klocksiem, H. L., Des Moines (APO New York, N. Y.).....Capt., A.U.S.
 Landis, S. N., Des Moines (West Palm Beach, Fla.).....1st Lt., A.U.S.
 La Tona, Salvatore, Des Moines.....1st Lt., A.U.S.
 Lederman, James, Des Moines.....1st Lt., R.C.A.
 Lehman, E. W., Des Moines (APO 565, San Francisco, Cal.).....Major, A.U.S.
 Losh, C. W., Jr., Des Moines (APO 752, New York, N. Y.).....Capt., A.U.S.
 Lovejoy, E. P., Des Moines.....Comdr., U.S.N.R.
 Maloney, P. J., Des Moines (Fort Lewis, Wash.).....1st Lt., A.U.S.
 Marquis, G. S., Des Moines (Brooklyn, N. Y.).....Lt. Comdr., U.S.N.R.
 Martin, L. E., Des Moines (Helena, Ark.).....1st Lt., A.U.S.
 Matheson, J. H., Des Moines (San Leandro, Cal.).....Lt. Comdr., U.S.N.R.
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.).....Capt., A.U.S.
 McCoy, H. J., Des Moines (Iowa City, Iowa).....Comdr., U.S.N.R.
 McDonald, J. J., Des Moines.....Major, A.U.S.
 McNamee, J. H., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Mencher, E. W., Des Moines.....1st Lt., A.U.S.
 Merkel, B. M., Des Moines (Denver, Colo.).....Major, A.U.S.
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.).....Capt., A.U.S.
 †Morden, R. P., Des Moines (APO 635, New York, N. Y.).....Capt., A.U.S.
 Mumma, C. S., Des Moines (Los Angeles, Cal.).....Major, A.U.S.
 Murphy, J. H., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Nelson, A. L., Des Moines (Camp Livingston, La.).....Major, A.U.S.
 Noun, L. J., Des Moines (Newport, R. I.).....Lt., U.S.N.R.
 Noun, M. H., Des Moines.....Major, A.U.S.
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.).....Lt., U.S.N.
 Overton, L. M., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Patton, B. W., Des Moines (Camp Robinson, Ark.).....1st Lt., A.U.S.

Pearlman, L. R., Des Moines.....Major, A.U.S.
 Peisen, C. J., Des Moines (APO 165, New York,
 N. Y.).....Major, A.U.S.
 Penn, E. C., West Des Moines (APO 650, New York,
 N. Y.).....Capt., A.U.S.
 Pfeiffer, E. P., Des Moines.....Major, A.U.S.
 Phillips, A. B., Des Moines (Fleet PO, San Fran-
 cisco, Cal.).....Lt., U.S.N.R.
 Porter, R. J., Des Moines (APO 635, New York,
 N. Y.).....Capt., A.U.S.
 Powell, L. D., Des Moines (Fleet PO, San Francisco,
 Cal.).....Capt., U.S.N.R.
 Pratt, E. B., Des Moines (APO New York, N. Y.).....Lt. Col., A.U.S.
 Priestley, J. B., Des Moines (Swannanoa, N. C.).....Lt. Col., A.U.S.
 Purdy, W. O., Des Moines (APO 562, New York,
 N. Y.).....Major, A.U.S.
 Robinson, V. C., Des Moines (Gulfport, Miss.).....Major, A.U.S.
 Rotkow, M. J., Des Moines (Camp Atterbury,
 Ind.).....Capt., A.U.S.
 Schaeferle, M. J., Des Moines (Carlisle Barracks,
 Penn.).....1st Lt., A.U.S.
 Schlaser, V. L., Des Moines (Hutchinson, Kan.).....Lt., U.S.N.
 Shepherd, L. K., Des Moines (APO New York,
 N. Y.).....Major, A.U.S.
 Shiffer, H. K., Des Moines.....Capt., A.U.S.
 Singer, P. L., Des Moines (Camp Grant, Ill.).....1st Lt., A.U.S.
 Skultety, J. A., Des Moines (Fleet PO, San Fran-
 cisco, Cal.).....P. A. Surg., U.S.P.H.S.
 Smead, H. H., Des Moines (APO 595, New York,
 N. Y.).....Capt., A.U.S.
 Smith, H. J., Des Moines (Chicago, Ill.).....Lt. Comdr., U.S.N.R.
 Smith, R. T., Des Moines (APO 713, Unit I, San Francisco,
 Cal.).....Capt., A.U.S.
 *Snodgrass, R. W., Des Moines (APO 9528, New York,
 N. Y.).....Capt., A.U.S.
 Snyder, G. E., Grimes (Galesburg, Ill.).....Major, A.U.S.
 Sohm, H. A., Des Moines (Des Moines, Ia.).....Comdr., U.S.N.R.
 Sorensen, R. M., Des Moines (Topeka, Kan.).....Major, U.S.P.H.S.
 Springer, F. A., Des Moines (Fleet PO, San
 Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Stearns, A. B., Des Moines (Denver, Colo.).....Major, A.U.S.
 Stickler, Robert, Des Moines (APO New York,
 N. Y.).....Major, A.U.S.
 Stitt, P. L., Des Moines (Seattle, Wash.).....Lt. (jg), U.S.N.R.
 Throckmorton, J. F., Des Moines (APO 339, New York,
 N. Y.).....Major, A.U.S.
 Toubes, A. A., Des Moines (APO 635, New York,
 N. Y.).....Capt., A.U.S.
 Turner, H. V., Des Moines (Camp Robinson, Ark.).....Capt., A.U.S.
 Updegraff, Thomas, Des Moines (APO San Fran-
 cisco, Cal.).....Capt., A.U.S.
 Van Hale, L. A., Des Moines (Des Moines, Iowa) Major, A.U.S.
 Vaubel, E. K., Des Moines (Washington, D. C.).....Capt., A.U.S.
 Wagner, E. C., Des Moines (APO 1009, San Fran-
 cisco, Cal.).....Capt., A.U.S.
 Wluett, W. M., Des Moines.....Capt., A.U.S.
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Zarchy, A. C., Des Moines (Camp Cooke, Cal.).....Capt., A.U.S.

Pottawattamie County

†Beaumont, F. H., Council Bluffs (APO 34, New York,
 N. Y.).....Major, A.U.S.
 Collins, R. M., Council Bluffs (Pensacola, Fla.).....Lt., U.S.N.R.
 Dean, A. M., Council Bluffs (Fleet PO, San Francisco,
 Cal.).....Comdr., U.S.N.R.
 Edwards, C. V., Council Bluffs (Pensacola, Fla.).....Lt. Comdr., U.S.N.R.
 Floersch, E. B., Council Bluffs (Fleet PO, San Fran-
 cisco, Cal.).....Lt. Comdr., U.S.N.R.
 Hennessy, J. D., Council Bluffs (Clinton,
 Okla.).....Lt. Comdr., U.S.N.R.
 Jansen, A. L., Council Bluffs (Ft. Lewis, Wash.).....Lt. Col., A.U.S.
 Klok, G. J., Council Bluffs (Fleet PO, San Diego,
 Cal.).....Lt., U.S.N.R.
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.).....Capt., A.U.S.
 Lambert, E. M., Council Bluffs (APO 403, New York,
 N. Y.).....Major, A.U.S.
 Maiden, S. D., Council Bluffs (Camp Hood, Texas).....Major, A.U.S.
 Martin, L. R., Council Bluffs (Auburn, Cal.).....Capt., A.U.S.
 Mathiasen, H. W., Neola (Alexandria, La.).....Capt., A.U.S.
 Moskovitz, J. M., Council Bluffs (APO 887, New York,
 N. Y.).....Capt., A.U.S.
 Rosenfeld, R. T., Council Bluffs (Staten Island,
 N. Y.).....Major, A.U.S.
 Standeven, W., Oakland (Colorado Springs, Colo.).....Capt., A.U.S.
 Sternhill, Isaac, Council Bluffs (Camp Crowder,
 Mo.).....Capt., A.U.S.
 Tinley, R. E., Council Bluffs (APO 600, New York,
 N. Y.).....Major, A.U.S.
 Treynor, J. V., Council Bluffs (Chicago, Ill.).....Comdr., U.S.N.R.
 West, A. G., Council Bluffs (APO 230, New York,
 N. Y.).....Capt., A.U.S.
 Wieseler, R. J., Avoca (McChord Field, Wash.).....A.U.S.
 Wurl, O. A., Council Bluffs (APO 887, New York,
 N. Y.).....Lt. Col., A.U.S.

Poweshiek County

Brobyn, T. E., Grinnell (APO 18593, New York,
 N. Y.).....Major, A.U.S.
 Hickerson, L. C., Brooklyn (APO 559, New York,
 N. Y.).....Capt., A.U.S.

Korfmacher, E. S., Grinnell (APO 923, San Francisco,
 Cal.).....Capt., A.U.S.
 Parish, J. R., Grinnell (Oakland, Cal.).....Lt. Comdr., U.S.N.R.
 Somers, P. E., Grinnell (Denver, Colo.).....1st Lt., A.U.S.

Ringgold County

Seaman, C. L., Mount Ayr (Fort Smith, Ark.).....Major, A.U.S.

Sac County

Bassett, G. H., Sac City (Mobile, Ala.).....Lt. Comdr., U.S.N.R.
 Deters, D. C., Schaller (APO 34, New York, N. Y.).....Capt., A.U.S.
 Evans, W. I., Sac City (APO 9212, New York,
 N. Y.).....Capt., A.U.S.
 Klockslem, R. G., Odebolt (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Neu, H. N., Sac City.....Lt. Col., A.U.S.

Scott County

†Baker, R. W., Davenport (APO 511, New York,
 N. Y.).....Capt., A.U.S.
 Balzer, W. J., Davenport.....Capt., A.U.S.
 Bishop, J. F., Davenport (Camp Wheeler, Ga.).....Major, A.U.S.
 Block, L. A., Davenport (Cambridge, Ohio).....Major, A.U.S.
 Boden, W. C., Davenport (APO 3760, New York,
 N. Y.).....Capt., A.U.S.
 Boyer, U. S., Davenport (Rock Island, Ill.).....Lt. Col., A.U.S.
 Brown, M. J., Davenport (APO 562, New York,
 N. Y.).....Lt. Col., A.U.S.
 Carey, E. T., Davenport (APO 928, San Francisco,
 Cal.).....1st Lt., A.U.S.
 Christiansen, C. C., Dixon (APO 961, San Fran-
 cisco, Cal.).....Capt., A.U.S.
 Coleman, Tom, Davenport (APO 230, New York,
 N. Y.).....Capt., A.U.S.
 Cummins, G. M., Jr., Davenport (Fort Custer,
 Mich.).....Capt., A.U.S.
 Decker, C. E., Davenport (APO 321, San Francisco,
 Cal.).....Major, A.U.S.
 Evans, H. J., Davenport (Daytona Beach, Fla.).....Capt., A.U.S.
 Gibson, P. E., Davenport (Palm Springs, Cal.).....Major, A.U.S.
 Goenne, Wm., Jr., Davenport (APO 91, New York,
 N. Y.).....Capt., A.U.S.
 Hurevitz, H. M., Davenport.....Major, A.U.S.
 Hurteau, Everett, Davenport (APO 647, New York,
 N. Y.).....Capt., A.U.S.
 Hurteau, W. W., Davenport (Camp Berkeley,
 Texas).....Major, A.U.S.
 Kimberly, L. W., Davenport (Oak Ridge, Tenn.).....Capt., A.U.S.
 Krakauer, Max, Davenport (APO 758, New York,
 N. Y.).....Capt., A.U.S.
 Kuhl, A. B., Jr., Davenport (Ft. Meade, Md.).....1st Lt., A.U.S.
 LaDage, L. H., Davenport (APO 339, New York,
 N. Y.).....Major, A.U.S.
 Lorfeld, G. W., Davenport (Columbus, Ohio).....Capt., A.U.S.
 McMeans, T. W., Davenport (APO 557, New York,
 N. Y.).....Capt., A.U.S.
 Neufeld, R. J., Davenport (APO 565, Unit I, San Francisco,
 Cal.).....Capt., A.U.S.
 Perkins, R. M., Davenport (APO 121B, New York,
 N. Y.).....Capt., A.U.S.
 Rendleman, Hugh, Davenport (Fleet PO, San
 Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Sheeler, I. H., Davenport (APO 350, New York,
 N. Y.).....Capt., A.U.S.
 Shorey, J. R., Davenport (APO 204, New York,
 N. Y.).....Capt., A.U.S.
 Smazal, S. F., Davenport (APO 230, New York,
 N. Y.).....Capt., A.U.S.
 Sorenson, A. C., Davenport (Oakland, Cal.).....Comdr., U.S.N.R.
 Sunderbruch, J. H., Davenport (APO 70, San Fran-
 cisco, Cal.).....Capt., A.U.S.
 Weinberg, H. B., Davenport (APO 72, San Francisco,
 Cal.).....Major, A.U.S.
 Zukerman, C. M., Bettendorf (Chicago, Ill.).....Capt., A.U.S.

Shelby County

Bisgard, C. V., Harlan (Fleet PO, San Francisco,
 Cal.).....Comdr., U.S.N.R.
 Griffith, W. O., Shelby (APO 9490, New York,
 N. Y.).....Capt., A.U.S.
 McGowan, J. P., Harlan (La Jolla, Cal.).....Lt. Comdr., U.S.N.R.

Sioux County

Gleysteen, R. R., Alton (Portsmouth, Va.).....Lt. Comdr., U.S.N.
 Grossmann, E. B., Orange City (APO 403, New York,
 N. Y.).....Capt., A.U.S.
 Larson, M. O., Hawarden (APO 562, New York,
 N. Y.).....Lt. Col., A.U.S.
 Oelrich, A. M., Hull (APO New York, N. Y.).....1st Lt., A.U.S.
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.).....1st Lt., A.U.S.

Story County

Conner, J. D., Nevada (APO 73, San Francisco,
 Cal.).....Capt., A.U.S.
 Fellows, J. G., Ames (APO 451, New York, N. Y.).....Major, A.U.S.
 Lekwa, A. H., Story City (Treasure Island,
 Cal.).....Lt. Comdr., U.S.N.R.
 McFarland, G. E., Jr., Ames (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.

McFarland, J. E., Ames (Fleet PO, San Francisco, Cal.)Comdr., U.S.N.R.
 Rosebrook, L. E., Ames (APO 433, New York N. Y.)Major, A.U.S.
 Sperow, W. B., Nevada, (Fleet PO, San Francisco, Cal.)Comdr., U.S.N.R.
 Thorburn, O. L., Ames (Clovis, N. Mex.)Major, A.U.S.
 Wall, David, Ames (APO 448, New York, N. Y.)1st Lt., A.U.S.

Tama County

Bezman, H. S., Traer (APO 9875, New York, N. Y.) Capt., A.U.S.
 Boller, G. C., Traer (Ft. Oglethorpe, Ga.)Capt., A.U.S.
 Dobias, S. G., Chelsea (APO 86, San Francisco, Cal.)Major, A.U.S.
 Havlik, A. J., Tama (Fleet PO, San Francisco, Cal.)Lt., U.S.N.R.
 Standefer, J. M., Tama (Des Moines, Iowa)Lt., U.S.N.R.

Taylor County

Hardin, J. F., Bedford (APO 952, San Francisco, Cal.)1st Lt., A.U.S.

Union County

Beatty, H. G., Creston (New Orleans, La.)1st Lt., A.U.S.
 Paragas, M. R., Creston (APO 442, San Francisco, Cal.)Capt., A.U.S.
 Ryan, C. J., CrestonCapt., A.U.S.

Wapello County

Brentan, Emanuel, Ottumwa (Camp Carson, Colo.)Capt., A.U.S.
 Brody, Sidney, Ottumwa (Monticello, Ark.)Lt. Col., A.U.S.
 Gilfillan, C. D. N., Eldon (Battle Creek, Mich.)Capt., A.U.S.
 Howell, H. P., Ottumwa (Hamilton Field, Cal.)Major, A.U.S.
 Hughes, R. O., Ottumwa (Fleet PO, San Francisco, Cal.)Lt. Comdr., U.S.N.R.
 Moore, G. C., Ottumwa (APO 314, New York, N. Y.)Capt., A.U.S.
 Prewitt, L. H., Ottumwa (San Antonio, Texas)Major, A.U.S.
 Selman, R. J., Ottumwa (El Paso, Texas)Col., A.U.S.
 Struble, G. C., Ottumwa (Cleveland, Ohio)Lt. Col., A.U.S.
 Whitehouse, W. N., Ottumwa (Fleet PO, San Francisco, Cal.)Lt. Comdr., U.S.N.R.

Warren County

Fullgrabe, E. A., Indianola (Fleet PO, New York, N. Y.)Lt., U.S.N.R.
 Hoffman, G. R., Lacona (Camp San Louis Obispo, Cal.)Capt., A.U.S.
 Shaw, E. E., Indianola (APO 832, New Orleans, La.)Capt., A.U.S.

Washington County

Boice, C. L., Washington (Arlington, Wash.)Lt., U.S.N.
 Droz, A. K., Washington (Fleet PO, San Francisco, Cal.)Comdr., U.S.N.R.
 Mast, T. M., Washington (Great Lakes, Illinois)Lt. Comdr., U.S.N.R.
 Miller, J. R., Wellman (APO New York, N. Y.)1st Lt., A.U.S.
 Stufman, R. E., Washington (Patuxent River, Md.)Lt., U.S.N.R.
 Ware, S. C., KalonaMajor, A.U.S.

Wayne County

Hyatt, C. N., Jr., Humeston (Longview, Texas)Capt., A.U.S.

Webster County

Baker, C. J., Fort Dodge (APO New York, N. Y.)Major, A.U.S.
 Burch, E. S., Dayton (Camp Crowder, Mo.)Capt., A.U.S.
 Burleson, M. W., Fort Dodge (Pasadena, Cal.)Capt., A.U.S.
 Coughlan, C. H., Fort Dodge (Camp Carson, Colo.)Major, A.U.S.
 Dawson, E. B., Fort Dodge (Fleet PO, San Francisco, Cal.)Lt. Comdr., U.S.N.R.
 Glesne, O. N., Ft. Dodge (New River, N. C.)Lt. Comdr., U.S.N.R.
 Joyner, N. M., Fort Dodge (Minneapolis, Minn.)A.U.S.
 Kluever, H. C., Fort Dodge (St. Louis, Mo.)Lt. Comdr., U.S.N.R.
 Larsen, H. T., Fort Dodge (Pensacola, Fla.)Lt., U.S.N.R.
 Pederson, Thomas, Webster CityCapt., A.U.S.
 Shrader, J. C., Fort Dodge (Camp Carson, Colo.)Lt. Col., A.U.S.
 Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.)Capt., A.U.S.
 Van Patten, E. M., Ft. Dodge (Colorado Springs, Colo.)Capt., A.U.S.

Winneshiek County

Fritchen, A. F., Decorah (Fleet PO, San Francisco, Cal.)Comdr., U.S.N.R.
 Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.)Lt. Col., A.U.S.
 Larson, L. E., Decorah (Fleet PO, San Francisco, Cal.)Lt. Comdr., U.S.N.R.
 Svendsen, R. N., Decorah (San Diego, Cal.)Lt. (jg), U.S.N.R.
 Van Besien, G. J., Decorah (Springfield, Mo.)Capt., A.U.S.

Woodbury County

Bettler, P. L., Sioux City (APO 235, San Francisco, Cal.)Lt. Col., A.U.S.
 Blackstone, M. A., Sioux City (San Francisco, Cal.)Capt., A.U.S.
 Boe, Henry, Sioux City (Fort Snelling, Minn.)Capt., A.U.S.
 Burroughs, H. H., Sioux City (Portsmouth, Va.)Lt., U.S.N.R.
 Cmeyle, P. M., Sioux City (P.O.W., c/o Japanese Red Cross, Tokyo, Japan)Capt., A.U.S.
 Cowan, J. A., Sioux City (Oklahoma City, Okla.)Major, U.S.P.H.S.
 Crowder, R. E., Sioux City (Kansas City, Mo.)Lt. Comdr., U.S.N.R.
 Dimsdale, L. J., Sioux City (Clinton, Iowa)Capt., A.U.S.
 Down, H. I., Sioux City (APO 758, New York, N. Y.)Lt. Col., A.U.S.
 Elson, V. J., Danbury (Ft. Leonard Wood, Mo.)Capt., A.U.S.
 Frank, L. J., Sioux City (Fleet PO, San Francisco, Cal.)Comdr., U.S.N.R.
 Graham, J. W., Sioux City (Pensacola, Fla.)Lt. Comdr., U.S.N.R.
 Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.)Capt., A.U.S.
 Harris, D. M., Sioux City (APO 403, New York, N. Y.)Capt., A.U.S.
 Heffernan, C. E., Sioux City (APO 17682, San Francisco, Cal.)Capt., A.U.S.
 Hicks, W. K., Sioux City (Spokane, Wash.)Major, A.U.S.
 Honke, E. M., Sioux City (Palm Springs, Cal.)Major, A.U.S.
 Kaplan, David, Sioux City (APO 36, New York, N. Y.)Capt., A.U.S.
 Knott, P. D., Sioux City (Camp Crowder, Mo.)Capt., A.U.S.
 Knott, R. C., Sioux City (APO 403, New York, N. Y.)Major, A.U.S.
 Krigten, W. M., Sioux City (Springfield, Mo.)Lt. Col., A.U.S.
 Lange, J. N., Sioux City (APO 63, New York, N. Y.)Major, A.U.S.
 Martin, R. F., Sioux City (APO 403, New York, N. Y.)Capt., A.U.S.
 Mattice, L. H., Danbury (APO 928, San Francisco, Cal.)Capt., A.U.S.
 McCuiston, H. M., Sioux City (APO 209, New York, N. Y.)Major, A.U.S.
 Mugan, R. C., Sioux City (Miami Beach, Fla.)Capt., A.U.S.
 Rarick, I. H., Sioux City (Fresno, Cal.)Capt., A.U.S.
 Reeder, J. E., Jr., Sioux City (APO 209, New York, N. Y.)Major, A.U.S.
 Ryan, M. J., Sioux City (Topeka, Kan.)Major, A.U.S.
 Schwartz, J. W., Sioux City (APO 816, New York, N. Y.)Lt. Col., A.U.S.
 Tracy, J. S., Sioux City (Camp Polk, La.)Major, A.U.S.

Worth County

Westly, G. S., Manly (APO 927, San Francisco, Cal.)Major, A.U.S.

Wright County

Aagesen, C. A., Dows (APO 383, New York, N. Y.)Capt., A.U.S.
 Bird, R. G., Clarion (Asbury Park, N. J.)Lt. Comdr., U.S.N.R.
 Doles, E. A., Clarion (Spokane, Wash.)Capt., A.U.S.
 Gorrell, R. L., Clarion (Denver, Colo.)P.A. Surg., U.S.P.H.S.
 Leinbach, S. P., Belmond (Fleet PO, San Francisco, Cal.)Lt., U.S.N.R.
 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.)Capt., A.U.S.

(*) Reported missing in action.
 (†) Reported deceased in service.
 (‡) Reported prisoner of war.

COURSE IN LABORATORY TECHNIC ANNOUNCED

The School of Medical Technology, State Department of Health of Kentucky, announces a year's course in Hematology, Medical Chemistry, Serology, Bacteriology, Parasitology, Tropical Diseases and Urinalysis. Classes begin in September, February and June. For those desiring to join the September class there are special instructors who will take students until the middle of October. Entrance requirements are two years of college including courses in Chemistry and Biology. Scholarships available. For further information apply to L. H. South, M.D., 620 South Third Street, Louisville 2, Kentucky.

SPEAKERS BUREAU ACTIVITIES

DR. PELOUZE TOURS STATE

The Speakers Bureau, in cooperation with the State Department of Health, is pleased to announce a series of lectures by Dr. Percy S. Pelouze of the United States Public Health Service. Dr. Pelouze is widely known as Assistant Professor of Urology at the University of Pennsylvania and as the author of several books, among which are "Office Urology" and "Gonorrhea in the Male and Female." For this series of talks, Dr. Pelouze has chosen the topic, "Diagnosis and Treatment of Gonorrhea."

Since there has been a definite increase in the venereal disease rate in the past few years, we believe it is a real opportunity for Iowa physicians to hear this outstanding speaker.

Arrangements have been completed for meetings in Ottumwa, Red Oak, Burlington, Dubuque, Des Moines, Sioux City, and Mason City. With this distribution of locations every physician in Iowa should be within convenient driving distance of one of the

meetings. Preceding the address, dinner will be served at the various places listed in the following schedule.

RADIO SCHEDULE

WOI—Wednesdays at 2:45 p. m.
WSUI—Thursdays at 3:00 p. m.

- Oct. 3- 4 Pneumonia
John G. Grant, M.D.
- Oct. 10-11 Dangers in the Indiscriminate Use of
 Drugs J. Donald Anderson, M.D.
- Oct. 17-18 Medical Care in Europe
Lawrence G. Schaeferle, M.D.
- Oct. 24-25 Anemia
Frederick H. Lamb, M.D.
- Oct. 31-
- Nov. 1 Plastic Surgery
Robert T. Tidrick, M.D.

Date	Location	Meeting Place	Hour	Local Chairman
October 2	Ottumwa	Hotel Ottumwa	6:30 p. m.	Lawrence A. Taylor, M.D. 404 Hofmann Building Ottumwa, Iowa
October 3	Red Oak	Johnson Hotel	6:30 p. m.	Helge Borre, M.D. Red Oak, Iowa
October 5	Burlington	Burlington Hotel	6:30 p. m.	Wayne R. Lee, M.D. 613 Medical Arts Building Burlington, Iowa
October 9	Dubuque	Bunker Hill Golf Club	6:30 p. m.	Joseph W. Lawrence, M.D. Roshek Building Dubuque, Iowa
October 10	Des Moines	Des Moines Club	6:30 p. m.	Edwin M. Kingery 721 Bankers Trust Building Des Moines 9, Iowa
October 11	Sioux City	Martin Hotel Ballroom	7:00 p. m.	Roland T. Rohwer, M.D. 629 Davidson Building Sioux City 13, Iowa
October 12	Mason City	Hanford Hotel	6:30 p. m.	Thorald E. Davidson, M.D. Park Hospital Mason City, Iowa

WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

President—MRS. SOREN S. WESTLY, Manly

President-Elect—MRS. ARTHUR E. MERKEL, Des Moines

Secretary—MRS. KEITH M. CHAPLER, Dexter

Treasurer—MRS. HARRY W. DAHL, Des Moines

A WELL-INFORMED AUXILIARY MEMBER

MRS. EUSTACE A. ALLEN, First Vice President and Chairman of Organization, Woman's Auxiliary to the American Medical Association

The first prerequisite for the existence of any organized body is that it must subserve some useful purpose. Our purpose is to serve as an auxiliary to the medical profession. There can be nothing more worth while.

The important feature of a good auxiliary is holding the interest of its membership and gaining new members. This cannot be overestimated. Members must be intelligently informed of auxiliary aims in order to participate effectively in community, state and national affairs. War and its problems continue to have the right of way, but now is the time to increase our membership and to lay plans for the postwar era.

The Organization Committee worked hard this past year, and plans are going forward for a more effective coming year. To this end the following recommendations are made:

Prepare for the work of organization by familiarizing yourself concerning all phases of auxiliary work. This information can be obtained from the following sources:

- The Handbook for state auxiliaries. Every officer and chairman should have a copy.
- The BULLETIN of the Woman's Auxiliary. Every member should be a subscriber.
- The constitution and by-laws of the Woman's Auxiliary. At least one meeting a year should be set aside to read and discuss your constitution and by-laws.
- The *Journal of the American Medical Association*. Read it to keep posted on the advances of medicine and medical legislation.

There is much more material available to make a well informed member, but that which is listed is the most important. In addition to the aforementioned, every state chairman will be sent material from the regional and co-chairman, which will be of help in her work of increasing membership. At all times the National Organization Committee stands willing and ready to be of assistance.

From the August, 1945, issue of the Bulletin of the Woman's Auxiliary to the American Medical Association.

Butler County Auxiliary

The Auxiliary of the Butler County Medical Society was organized March 19, 1945, with five members present. Since that time the membership has increased to ten members. The group voted to pay dues of one dollar per member. We have met on the second Monday of each month since our organization and have had dinner or potluck with the doctors.

A yearbook indicating course of study was presented to each member by the president. Some of the topics which have already been presented by individual members are: Discussion of Wagner-Murray-Dingell Bill, Report of Auxiliary State Meeting by our president, Cancer, Postwar Planning, Reconditioning and Rehabilitation of U. S. Soldiers.

The Auxiliary contributed \$1.00 toward the Cancer Fund. The organization is attempting to subscribe individually for the *Hygeia* magazine.

BRIEF ANSWERS TO CANCER QUESTIONS

The questions here answered are those most frequently asked about cancer. All are questions actually submitted to the Division of Cancer Control of the Iowa State Department of Health.

Though admittedly, the answers are sometimes incomplete since for this space they are necessarily condensed, it is hoped that they will be found informative:

Q. How can I tell if I have cancer?

A. You can't. Cancer of the lower bowel, for example, may exist for a long time without any symptoms but before it manifests itself by bleeding or constipation, it can be discovered by a rectal examination. Even when signs are present, e.g. a tumor of the breast, the doctor may not be sure until a bit of tissue has been examined microscopically. Cancer is insidious, often does not hurt, and in its beginnings does not look dangerous; hence, we need to be ever alert.

Q. If I should get a cancer, can it be found and cured?

A. In general, yes to both your questions. Careful examination will generally reveal any abnormality. Obviously, cancer of the skin, lip, breast

(Continued on page 424)

From the May, 1945, Bulletin of the Iowa Division Field Army of American Cancer Society.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. WALTER L. BIERRING, Des Moines, Chairman

DR. HENRY G. LANGWORTHY, Dubuque, *Secretary* DR. CHARLES L. JONES, Gilmore City

DR. CLYDE A. HENRY, Farson

DR. LESTER C. KERN, Waverly

Medical History of Wapello County

CLYDE A. HENRY, M.D., Farson

Part V

A COMPENDIUM OF WAPELLO COUNTY MEDICAL HISTORY FROM 1853 TO 1945

(Continued from last month)

Dr. Harold Homer Webb was born in New Castle, Virginia, April 13, 1890, and died November 4, 1942, at his home in Ottumwa. He graduated in medicine at the University of Maryland with the class of 1912. He located first in the coal mining regions of Virginia, engaging in general practice for a large mining corporation. He left Virginia and moved to Dubuque, Iowa, in 1931, to become chief radiologist at the Mercy Hospital. In 1933 he came to Ottumwa, succeeding Dr. John F. Herrick as radiologist for the three hospitals—St. Joseph's, the Ottumwa, and Sunnyslope, which position he filled with marked ability until his health began to fail a few months before his death.

Dr. Webb was an active member of the Wapello County Medical Society, and was a member of the Iowa State Medical Society, the American Medical Association, the Radiological Society of North America, and other affiliated societies. He was a skillful radiologist, a courteous gentleman, and was liked by all the doctors who came in contact with him.

Dr. Webb married Miss Leonore Woltz of Virginia in 1914. They had three children, the first dying at the age of two. His wife and a son and daughter survive. Mrs. Webb now resides in Seal Beach, California.

Dr. Martin F. Moore was born on a farm near Martinsburg, Iowa, August 7, 1875, and died while undergoing a minor nasal operation in the Ottumwa Hospital, December 27, 1919. His father, Calvin Moore, was a native of Ohio. He married Mary Ann Wilson, who, as an Irish orphan girl, came to this country at the age of seven. To this marriage three sons were born: Dr. M. F. Moore, Wilbur Moore, and Dr. H. H. Moore,

a practicing surgeon of Ottumwa. While Martin was yet a small boy his father moved to Martinsburg, where he operated a meat market until about 1914 when he retired and moved to Ottumwa.

Martin F. Moore, familiarly known throughout the community in which he grew to manhood and practiced medicine for many years as "Martie" Moore, received his early education in the public schools of Martinsburg, and at Penn College, Oskaloosa. During his vacation periods he divided his time between the office of his preceptor, Dr. P. Sherlock, and his father's butcher shop—Gray's Anatomy on the one hand, adventures in comparative anatomy on the other.

He entered the Keokuk Medical College in the fall of 1895, from which institution he received his medical degree in 1898. He immediately returned to his home town to engage in the practice of his profession. These were the days of the horse-and-buggy, and kitchen-surgery. Dr. Moore had confidence in his ability and aspired to become a successful surgeon—minor surgery to begin with, but skillfully performed. He won friends rapidly, both lay and professional. He made frequent trips to Chicago, Kansas City, and Rochester, devoting his time on such occasions to the technicalities of operative surgery. Finally, he was presented with a great opportunity: an emergency appendectomy. The operation was a success. In those days everyone discussed appendicitis. If it became known a few hours beforehand that an operation was to be performed, villagers and country folk in goodly numbers hastened to the farm home to peer through windows and open doorways to witness the miracle of modern surgery. Dr. Moore was unusually successful, al-

though his surgery was executed entirely in the homes of his patients for several years. Not only did he win the confidence of his community, but soon had established himself as a competent surgeon with a number of his confreres in the surrounding country, performing with almost incredible success the general surgical undertakings of those days. At one time he seriously considered the feasibility of establishing a small private hospital in his home village. But the drift of surgery was to the new and larger hospitals in surrounding cities, and the plan was abandoned. Then, for a few years he operated frequently in the hospitals in Ottumwa and Oskaloosa. He finally moved to Ottumwa in 1914, where he formed a partnership with his brother, Dr. H. H. Moore, and continued in practice there until his death occurred.

Dr. Martin F. Moore married Miss Harriet McDaniel, of Ottumwa, October 1, 1919. They had planned to leave within a few days for an extended visit to the west coast when his death occurred. Mrs. Moore survives and resides in Ottumwa. They had no children.

Dr. Thomas J. Douglass, son of Archibald A. and Maria (Parks) Douglass, was born July 3, 1827, in Mercer County, Pennsylvania. He obtained his early education in Pennsylvania and read medicine with Dr. Roderique of Hollidaysville. He attended lectures at the University of Pennsylvania in Philadelphia and in the Medical Department of Western Reserve College, Cleveland, Ohio, graduating from the former in 1853 and from the latter in 1854. He practiced one year in Hollidaysville and then located in Ottumwa in 1856, to become one of the outstanding physicians of that period. He took an active part in the various medical societies, especially the Des Moines Valley Medical Association and the Wapello County Medical Society. He became the first vice president of the Wapello County Medical Society when it was reorganized in 1870.

Dr. Douglass was married twice—first, to Miss Caroline Whaley of Marshall, Clark County, Illinois, on October 22, 1857. She died June 27, 1859. On January 1, 1862, he married Miss Lizzie J. Wheeler of Fairfield, Iowa. He had one child by the first marriage, which died in infancy, and four children by his second marriage, two of whom also died in infancy.

Dr. J. T. Douglass died at his home in Ottumwa on September 2, 1899.

Dr. Benjamin Webster Searle was born September 2, 1840, at Sunberry, Delaware County, Ohio, and died in the Wellesley Hospital, Chicago,

February 7, 1911. When he was a small child his father moved the family to Iowa, settling upon a farm in Washington Township, Wapello County. He received his early education in the Ashland schools and was engaged in the study of medicine at the beginning of the Civil War. In response to his Country's call, he enlisted as First Sergeant in Company I, First Cavalry, on June 13, 1861. He was discharged March 13, 1868, having been disabled in the line of duty.

Upon his return he resumed the study of medicine, and began practice in Dahlonga, Iowa, in 1866. In the winter of 1872-73 he returned to the College of Physicians and Surgeons at Keokuk, Iowa, from which institution he received his medical degree. He immediately resumed his practice at Dahlonga, but later established his residence in what is now a suburb of the city of Ottumwa. His practice was among the country folk, and he is remembered by the pioneers of this county as one of the leading physicians of his time. Although he resided many years but a short distance away, it is said that he very rarely visited the heart of the city.

For many years Dr. Searle was an active member of the Wapello County Medical Society, and the Des Moines Valley Medical Association. He was also a member of the Iowa State Medical Society and the American Medical Association.

His old home and the spacious grounds surrounding it were purchased in 1924 by the St. Joseph's Hospital Association; and during the following year a modern, fireproof, four-story brick building, with basement, was erected, with a capacity of 110 beds and 25 bassinets. Dr. Searle's old home was used as a nurses' home until it was destroyed by fire in 1928. There is a modern two-story nurses' home in the process of construction on the site of the old building which, when completed, will house 65 student nurses.

Dr. Searle married Miss Martha M. Moorman, of Jefferson County, Iowa, who died in 1932. To them were born two sons, Charles B. and Fred T., both of whom reside in Ottumwa.

(to be continued)

NOTICE TO COUNTY SOCIETY SECRETARIES

Please notify the Central Office when men in your county return from service so that the records of these men can be maintained accurately. Your assistance in this respect will be greatly appreciated.

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

PHYSICAL DIAGNOSIS—By Ralph H. Major, M.D., Professor of Medicine, The University of Kansas, Kansas City, Kansas. Third edition, revised. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

THE 1944 YEAR BOOK OF INDUSTRIAL AND ORTHOPEDIC SURGERY—Edited by Charles F. Painter, M.D., Orthopedic Surgeon to the Massachusetts Women's Hospital and Beth Israel Hospital, Boston. The Year Book Publishers, Chicago, 1945. Price, \$3.00.

PENICILLIN THERAPY, Including Tyrothricin and Other Antibiotic Therapy—By John A. Kolmer, M.D., Professor of Medicine in the School of Medicine and the School of Dentistry, Temple University; Director of the Research Institute of Cutaneous Medicine; Formerly Professor of Pathology and Bacteriology, Graduate School of Medicine, University of Pennsylvania. D. Appleton-Century Company, New York, 1945. Price, \$5.00.

A MANUAL OF SURGICAL ANATOMY—Prepared under the Auspices of the Committee on Surgery of the Division of Medical Sciences of the National Research Council, by Tom Jones and W. C. Shepard. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

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THE CARE OF THE NEUROSURGICAL PATIENT—By Ernest Sachs, M.D., Professor of Clinical Neurological Surgery, Washington University School of Medicine, St. Louis. The C. V. Mosby Company, St. Louis, 1945. Price, \$6.00.

FACIAL PROSTHESIS—By Arthur H. Bulbulian, M.S., D.D.S., F.A.C.D., Director, Museum of Hygiene and Medicine, The Mayo Foundation, Rochester, Minnesota. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

CLINICAL BIOCHEMISTRY—By Abraham Cantarow, M.D., Professor of Physiological Chemistry, Jefferson Medical College, formerly Associate Professor of Medicine, Jefferson Medical College, and Assistant Physician, Jefferson Hospital; and MAX TRUMPER, Ph.D., Lt. Comdr., H(S), U.S.N.R., Naval Medical Research Institute, National Naval Medical Center, Bethesda, Md., formerly in charge of the Laboratories of Biochemistry of the Jefferson Medical College and Hospital. Third edition, revised. W. B. Saunders Company, Philadelphia, 1945. Price, \$6.50.

BOOK REVIEWS

PENICILLIN THERAPY

By John A. Kolmer, M. D., Professor of Medicine in the School of Medicine and the School of Dentistry, Temple University; Director of the Research Institute of Cutaneous Medicine; Formerly Professor of Pathology and Bacteriology, Graduate School of Medicine, University of Pennsylvania. D. Appleton-Century Company, New York, 1945. Price, \$5.00.

Although scarcely four years have elapsed since the discovery of penicillin and a little over two years since its introduction into this country, its impact in the therapeutic world has been tremendous. Anticipating its free distribution for civilian use, Dr. Kolmer prepared in his book a summary of the known facts about penicillin up to date and included other antibiotics.

The early chapters deal with the production, the detection and assaying, and the physical and chemical properties of penicillin. Then a chapter is devoted to the activity of penicillin in vitro and in vivo. Pharmacology and toxicity are discussed in detail. The use of penicillin in the treatment of various diseases is discussed in the following several chapters. Essentially the book is a summary of all known information about penicillin to the present time. From this point of view it should be of considerable value to physicians who for the first time are using this drug in their practices. Methods of administration and dosages are all gone into carefully so that the physician has a quick and ready reference for almost any use to which he would wish to put penicillin. To most of us the discussion of tyrothricin, gramicidin, streptothricin, patulin, and chlorophyll is of academic interest only.

This small volume of some three hundred pages,

into which Dr. Kolmer has condensed the voluminous literature on penicillin, is to be thoroughly recommended.

L. F. H.

MILITARY MEDICAL MANUALS MANUAL OF CLINICAL MYCOLOGY

Prepared under the Auspices of the Division of Medical Sciences of the National Research Council. W. B. Saunders Company, Philadelphia, 1944. Price, \$3.50.

This text was designed for the use of physicians in the armed forces and produced under the auspices of the National Research Council. While it is of particular interest to medical officers caring for troops in tropical regions where mycotic infections are frequent, it is also a very valuable source of information to the civilian physician under whose care men now in the services will come.

Too little consideration has been given to the study of fungus infections. As the authors state, "Fungus infections are of such common occurrence that we have found it necessary to consider mycotic diseases in the differential diagnosis of practically every obscure infection." These diseases are sure to be a confusing problem in the immediate future and this text serves a timely purpose in clearing up much of our lack of knowledge or misunderstanding with regard to fungus diseases.

This volume should be of practical value to every practitioner.

J. W. Y.

HAY FEVER PLANTS

By Roger P. Wodehouse, Ph. D., Associate Director of Research in Allergy, Lederle Laboratories, Pearl River, New York. The Chronica Botanica Company,

Waltham, Massachusetts; G. E. Stechert and Company, New York City, 1945. Price, \$4.75.

In a scholarly style, this text discusses the distribution, time and manner of pollination, and clinical rôle of various plants in the production of hay fever. Many tables of regional pollen surveys coordinated with field plant surveys and an excellent cross index serve as a ready reference for determining what plants are significant in various communities. Although this information is available from many other sources, in none are the botanic aspects so thoroughly covered. As a matter of fact, much more of the book is devoted to didactic technical botany than is required by the clinician. It is, however, well illustrated, complete in detail, and should be a valuable aid for those desiring assistance in the recognition and determination of unknown local plants.

This information as to which plants are clinically important, together with guides in evaluation of local vegetation, are of definite interest to all who manage allergic diseases.

L. J. D.

TECHNICAL METHODS FOR THE TECHNICIAN

By Anson Lee Brown, M. D., Director of Dr. Brown's Clinical Laboratory and Dr. Brown's School for Technicians, Columbus, Ohio. Third edition. Published by the Author, 1945. Price, \$10.00.

If the reviewer were a laboratory technician, Dr. Brown's book is certainly one he would want to possess. From a careful perusal of its contents it would appear that the material is particularly well presented for the training of the technician in laboratory procedures. Particularly intriguing is the list of questions which is at the end of each chapter. For instance, there are 272 questions about urinalysis, answers to which the technician should have learned through study of the chapter on urinalysis. There are colored illustrations of the various types of blood cells, both normal and abnormal. Directions for performing various procedures are explicit and are usually enumerated in outline form.

Not only should this text be of value to the technician, but also to the physician who does his own laboratory work or who wishes to have an excellent laboratory reference book available. The outstanding feature of this volume is the unique and thorough way in which the material is presented.

L. F. H.

MASS RADIOGRAPHY OF THE CHEST

By Herman E. Hilleboe, M. D., Medical director, Chief, Tuberculosis Control Division, United States Public Health Service, Professorial Lecturer on Tuberculosis Control, George Washington University School of Medicine, Washington, D. C.; and RUSSELL H. MORGAN, M. D., Surgeon (R), Medical Officer-in-Charge, Radiology Section, Tuberculosis Control Division, United

States Public Health Service, Assistant Professor of Roentgenology, Absent on Leave, The University of Chicago. The Year Book Publishers, Chicago, Illinois, 1945. Price, \$3.50.

As the result of mass radiography of the chest by the armed forces there has been created a desire for inexpensive x-ray examination of the chest.

This small book is very timely since there will be a great need for mass examination of a large number of the citizens of the United States following the war.

Anyone interested or contemplating this type of examination should avail himself of the publication. There are excellent descriptions of the mechanical equipment necessary to carry on such an examination as well as explanations of the photo-timer and automatic camera. Also, there is a small chapter on the roentgen diagnosis of the chest with excellent reproductions.

T. A. B.

WOMAN'S AUXILIARY

(Continued from page 420)

and more accessible sites are more readily discovered than internal cancers, but both are equally amenable to treatment. Not all cancers are cured but it is estimated that 20,000 cures are achieved annually in the United States.

Q. What causes cancer?

A. The causes of cancer are multiple—at least two factors are involved. An intrinsic susceptibility that cannot be measured or modified and certain extrinsic factors such as exposure to certain chemicals or physical agents, irritation or continued inflammation and abnormal tissues such as scars which provide a suitable locus for malignant changes. These latter may be avoided and offer a chance to prevent cancers.

Q. What is cancer?

A. Cancer is a lawless growth of cells in the body that invades all tissues and tends to kill its host.

Q. What success has been made in curing cancer?

A. In 1930 the American College of Surgeons began to record well authenticated cases of five year cures of cancer. In that year, they recorded only 8,840 cases; three years later there were 24,448. In 1938 they had 29,135; in 1940, 36,087. Today, they have records of 39,318 such cures of cancer in almost every site, even cures of leukemia, or cancer of the brain, stomach, kidney, etc. Cancer of the womb is curable in 80 per cent of cases if seen early; cancer of the breast in 75 per cent; of the skin in 95 per cent; of the lip in 85 per cent, and so on.

Q. How does a person develop cancer?

A. Some cancers seem to develop spontaneously. Others, many of them are undoubtedly due to controllable factors such as irritation, long continued inflammation or infection or exposure to certain chemical or physical agents. Development is generally slow though the rate depends on the type of cancer and its disposition to spread.

SOCIETY PROCEEDINGS

Greene County

Members of the Greene County Medical Society and their wives met in Jefferson Thursday evening, August 23, for a seven o'clock dinner. The physicians held a business session following dinner while the ladies spent the evening socially.

Marion County

The Marion County Medical Society met at the Legion Hall in Pleasantville Thursday, September 13, at 6:30 p. m., with more than sixty members and visitors present. Six outside counties were represented. During dinner some interesting case reports were presented and a sextette of local ladies entertained with popular songs. Tarana J. G. Dulin, M.D., of Sigourney, gave a talk on her experience as a physician's wife and a practicing physician since 1903. After dinner Miss Mary McCord, Executive Secretary of the State Society, discussed Iowa Medical Service and some questions and answers were presented by Mr. Edwin M. Kingery, Executive Director of Iowa Medical Service. Roy C. Gutch, M.D., of Chariton, Councilor, discussed the veterans' care at home; and F. O. W. Voigt, M.D., of Oskaloosa, presented an interesting paper on the history of medicine. Closing remarks were given by Walter L. Bierring, M.D., of Des Moines.

E. C. McClure, M.D., Secretary

Polk County

Regular meeting of the Polk County Medical Society was held at the Iowa Lutheran Hospital in Des Moines Wednesday, September 19, at 6:30 p. m., in conjunction with the Iowa Lutheran Hospital Staff. John M. Waugh, M.D., of the Mayo Clinic, addressed the group on Indications and Contraindications for Vaginal and Abdominal Hysterectomy. Dr. Waugh illustrated his excellent lecture with slides and also presented an outstanding film on total hysterectomy.

Scott County

The September meeting of the Scott County Medical Society was held at the Lend-A-Hand Club in Davenport Tuesday, September 4, at 6:00 p. m. The guest speaker of the evening was Captain Lewis J. Dimsdale, M.C., Head of the Allergy Section at Schick General Hospital in Clinton. The subject of his interesting presentation was Allergic Diseases, Their Manifestations and Treatment.

L. J. Miltner, M.D., Davenport

Woodbury County

The Woodbury County Medical Society held its September meeting Monday, September 24, at 6:00 p. m., at the Sioux City Country Club. Following dinner Lieutenant Colonel John H. Greist, M.C.,

Neuropsychiatric Consultant at Headquarters of the Seventh Service Command, spoke on Psychiatric Problems in Army Medicine.

F. D. McCarthy, M.D., Secretary

PERSONAL MENTION

Major Floyd M. Burgeson, M.C., of Des Moines, has been awarded the Bronze Star Medal for "conserving the health and improving the well-being" of American officer prisoners of war at the Szubin, Germany, camp.

Major Ralph E. Hibbs, M.C., of Oskaloosa, has been awarded the Bronze Star Medal for his work as a surgeon of the tubercular ward, using improvised, makeshift equipment, in the hospital at Japanese Prison Camp No. 1, Cabanatuan, Philippine Islands.

The following physicians have been released from active military duty:

Dr. Joseph L. Doyle has resumed his practice in Sigourney after serving in the Army Medical Corps since November, 1942. Dr. Doyle held the rank of Captain.

Major Vance J. Elliott, M.C., of Knoxville, who recently returned from the European Theater of Operations, is resuming his practice in Knoxville. Major Elliott will be on terminal leave until December 17.

Dr. Robert C. Hardin, of Iowa City, who has been serving with the Army Medical Corps since 1941, is returning to the State University College of Medicine as instructor in the theory and practice of medicine. Dr. Hardin was a Major at the time of his release.

Dr. Kermit W. Myers has received his discharge and is resuming his practice in Sheldon. Dr. Myers, who was a Captain in the Army Medical Corps, returned several months ago from service in Europe.

Captain Paul W. Osincup, M.C., has recently returned from overseas duty as Flight Surgeon with the Fifteenth Air Force and plans to resume his practice in Sioux City. He will be on terminal leave until November 21. Captain Osincup received the Bronze Star Medal for "meritorious service in support of combat operations from January 1944 to May 1945."

Dr. James J. Redmond, who served with the Army Medical Corps for almost five years, forty months of which were overseas, has now received his discharge and has opened an office in the Higley Build-

ing in Cedar Rapids. Dr. Redmond held the rank of Major.

Dr. Ralph H. Riegelman has opened an office in the Equitable Building in Des Moines after being released from active duty. Dr. Riegelman, who has been in service almost five years and was station surgeon for the 44th Heavy Bomber Group of the 8th Air Force, was a Major at the time of his release.

Dr. Robert E. Shaw has received his discharge from the Army Medical Corps and is resuming his practice at Waverly. He was a First Lieutenant at the time of his release.

Dr. Elmer M. Smith, who practiced in State Center before entering military service, has now been discharged and is opening an office in Eagle Grove. Dr. Smith was a Lieutenant Colonel in the Medical Corps of the Army Air Forces at the time of his release.

Dr. Wilbur C. Thatcher reopened his office in Fort Dodge on September 4, after receiving his discharge from the Army Medical Corps. Dr. Thatcher, who entered military service in 1942, held the rank of Captain.

Dr. E. Dean Thompson was recently released from active service with the Army Medical Corps and is now associated with Dr. Leo C. Nelson of Jefferson. Before entering military service Dr. Thompson was located in Webster City.

Captain Clare A. Trueblood, M.C., was placed on the inactive list of the Army Medical Corps the latter part of September and plans to reopen his office in Indianola the first of October. Captain Trueblood recently returned from overseas duty.

Dr. Keith W. Woodhouse, who entered military service in January, 1940, has now returned and established his office in Cedar Rapids. Dr. Woodhouse was a Colonel in the Army Medical Corps at the time of his release.

Dr. Horace M. Korn, Professor of Medicine at the State University of Iowa College of Medicine until his resignation September 1, has entered private practice in Dubuque, where he is consultant in internal medicine with the Medical Associates.

Dr. F. Eberle Thornton is entering private practice and has announced the opening of his office in the Bankers Trust Building in Des Moines. For the past two and one-half years Dr. Thornton has been Assistant Professor in the Department of Orthopedic Surgery at the State University of Iowa College of Medicine.

Dr. Theodore J. Greteman, who has been on the staff of the State University of Iowa College of Medicine for the past nine years, and for the past

three years has been Assistant Professor of Orthopedic Surgery, opened an office in Charles City September 15. He will specialize in orthopedic surgery.

DEATH NOTICES

Hovenden, John Henry, of Laurens, aged seventy-one, died suddenly August 28 of a heart attack. He was graduated in 1898 from the University of Illinois College of Medicine, and at the time of his death was a member of the Pocahontas County and Iowa State Medical Societies.

Moth, Robert Shibley, of Council Bluffs, aged sixty-four, died August 27 after an illness of nearly three years. He was graduated in 1905 from the Hahnemann Medical College and Hospital of Chicago, and had long been a member of the Pottawattamie County and Iowa State Medical Societies.

Schilling, Nicholas, of New Hampton, aged seventy-seven, died September 2 of heart disease. He was graduated in 1896 from Creighton University School of Medicine, and at the time of his death was a life member of the Chickasaw County and Iowa State Medical Societies.

Thierman, Ernest Julius, of Cedar Falls, aged seventy, died September 13 following an illness of several years. He was graduated in 1904 from Jefferson Medical College of Philadelphia, and had long been a member of the Black Hawk County and Iowa State Medical Societies.

Harrison, Glenn Ellwood, Colonel, M.C., A.U.S., of Mason City, aged forty-two, died suddenly at his home August 31 of coronary occlusion. Colonel Harrison was on terminal leave after serving in the Army Medical Corps since December 1940. A few days before his death he was notified that the 35th Station Hospital on the island of Corsica, of which he was the commanding officer, had been awarded the meritorious service unit plaque for superior performance of duty in the accomplishment of exceptionally difficult tasks on the island during the period of February 15 to June 30, 1944. Colonel Harrison was graduated in 1928 from the State University of Iowa College of Medicine, and at the time of his death was a member of the Cerro Gordo County and Iowa State Medical Societies.

Springer, Eugene Willis, Captain, M.C., A.U.S., of Iowa City, aged thirty-four, died in Egypt February 23. Captain Springer had been in service since July 1942. He was graduated in 1936 from the University of Michigan Medical School, and at the time of his death was a member of the Johnson County and Iowa State Medical Societies.

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PAPILLOMAS OF THE VERUMONTANUM

MAJOR EDWARD M. HONKE, M.C., A.U.S.

Although papillomatous growths located in the posterior urethra are occasionally encountered, they are at times overlooked if cystoscopic examination is hurried or if a careful examination of the posterior urethra is not simultaneously made. The literature indicates that these growths are

urethra. Most of the pathology of the verumontanum is inflammatory in nature. The factors which are usually considered etiologic are minor infections and varying irregularities in the individual's sexual habits.

The pathology of the bladder papillomas is well known. The line of demarcation which exists between benign and malignant papillomas is very narrow and indefinite. The papillomas which are removed early frequently fail to show any microscopic sign of malignancy. However, their potentialities cause them all to be considered malignant. An additional factor worthy of consideration is the known relationship which exists between bladder malignancy and chronic irritation. This was first noticed as a result of the incidence of bladder malignancy in dye workers. It was noted that the epithelial change in leukoplakia often becomes



Fig. 1. Diagrammatic illustration indicating the site of origin and extent of the papillomatous growth.

not often seen in the younger age group. Of those seen, the majority are located in the supermontane region with a few having the verumontanum as their site of origin.

Their location, plus the fact that their occurrence in an individual's practice is somewhat infrequent, makes a brief emphasis warranted. While it is not necessary to go into detail regarding the embryology or anatomy of the posterior urethra, we must remember that the bladder mucosa is derived from the entoderm with the exception of part of the trigon and posterior urethra which is mesodermal from the wolffian duct. It follows that the mucosa of the posterior urethra is similar to that of the bladder and that pathology which can occur in the bladder can also occur in the posterior



Fig. 2. Section showing the base of the papilloma. A rather dense fibrous connective tissue, making up the central core, is well shown.

the site of malignancy. Papillomas located in the posterior urethra seldom occur unless preceded by pathology of an inflammatory nature.

CASE REPORT

The patient, a single male thirty years of age, entered the hospital complaining of urgency, tenesmus, frequency and nocturia. The family history and past personal history were essentially negative. Initial symptoms began a year prior to his admission with slight frequency and nocturia once. Tenesmus had been present only occasionally. As time went on these symptoms had greatly increased in severity until the nocturia had increased to six or seven times, the day frequency had increased to about fifteen to twenty times, and there was almost a constant tenesmus. The patient finally had to be hospitalized for diagnostic studies.

There had never been any gross hematuria or pyuria. Urinalysis was negative. The patient's sexual habits were rather regular; being in the Army and serving at a rather isolated spot limited his contacts to a minimum. There was a history of neisserian infection approximately ten years prior to admission.

The general physical examination was negative. Examination of the prostate gland revealed it to be normal in size, shape and consistency. There was no palpable evidence of tuberculosis or malignancy. Examination of the secretion with a micro-

scope revealed a three plus infection. Cystoscopic examination of the bladder was normal. Radiographic studies of the upper urinary tract were negative. Examination of the posterior urethra revealed a marked hyperemia of the entire posterior urethra. The verumontanum did not seem to be enlarged. There was a papillomatous growth which had its origin at the lower border of the sinus pularis. This growth extended to the vesical orifice as seen in the photograph. Since removal by electric current often distorts the pathologic picture, a small rongeur was used to remove the growth. Following this procedure, the base was fulgurated using a Bovie unit. Removal was followed by relief of symptoms. Pathologic sections showed no evidence of malignancy.

SUMMARY

This brief case report, with photographs, demonstrates a benign condition and emphasizes the value of careful examination of the posterior urethra. Also, it must be realized that these papillomatous growths may be benign early but they often become malignant as do papillomas of the bladder. Because of their location, they often become symptomatic sufficiently early to allow removal before malignant changes occur.

The examination of the posterior urethra at the time of each cystoscopic examination is of the utmost importance.

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REACTIONS (PALE-OUTS) IN BLOOD DONORS

CAPTAIN CECIL M. ZUKERMAN, M.C., A.U.S.

The withdrawal of 500 cubic centimeters of blood from properly selected donors is generally conceded to be a harmless procedure. At the Chicago Blood Donor Center approximately 6 per cent of the donors developed a systemic reaction immediately before venesection during the hemoglobin determination, during the giving of blood, or a few minutes after the blood collection. That this reaction is a psychosomatic phenomenon is rather well agreed upon by workers in this field.^{1,2,3}

From the Blood Donor Center, American Red Cross, Chicago, Illinois.



Fig. 3. Photomicrograph of papilla. The epithelium is stratified and is of the transitional type. Epithelial inclusions are present.

Since a reaction is disturbing to the donor and also is an outstanding problem for the technical staff, a study of these reactions was made at the Blood Donor Center of the American Red Cross in Chicago in order to clarify, if possible, the causative factors, and also to determine if there were any preventive measures which could be adopted. In the study 10,506 bleedings were reviewed, of which 659 reactions, or 6.26 per cent, were observed. On each donor having a reaction a special form was completed by the doctor in attendance; an equal number of donors not having a reaction were used as controls.

These reactions have been called "faints," but actually the complete loss of consciousness was infrequent, and when it did occur it was almost invariably accompanied by a convulsion. The procedure followed in handling these donors was that set forth by Taylor.⁴ The nurses did approximately 97 per cent of the venepunctures.

SYMPTOMS

The usual symptoms in order of their appearance and frequency are presented in Table I.

TABLE I.	
SYMPTOMS: ORDER OF APPEARANCE AND FREQUENCY	
Objective	Subjective
Pallor 90%	Feeling of heat or warmth... 70%
Yawning 30%	Dizziness 64%
Sighing 20%	Faintness (all-gone feeling)... 10%
Sweating 80%	Nausea (Uneasy feeling in stomach) 8%
Gagging 5%	Sense of tingling in skin—face and extremities..... 5%
Vomiting 2%	Ring in ears 1%
Convulsion 0.3%	Desire to defecate..... 0.3%
Carpal—pedal spasm .0.1%	Desire to urinate..... 0.2%

1. Pallor of the face was almost a constant observation, occurring in at least 90 per cent of the cases. In the more severe cases it was seen in the hands as well as the face. It usually was one of the earliest features of the attack, although it was often preceded by subjective symptoms such as a feeling of warmth or an "all-gone" feeling.
2. Sweating was mostly associated with pallor and varied from a slight clamminess to a drenching perspiration, which apparently occurred over the entire body since the clothing was soaked in many instances.
3. The pulse rate during the reaction was usually between 40 and 60: at the beginning it was of full volume and gradually became weaker as the condition progressed. The pulse, therefore, was generally the first sign of recovery, for by the time both volume and rate were restored to normal the donor was able to sit up without any discomfort.
4. Convulsions were present in 0.3 of 1 per cent of all the reactions. Usually the premonitory sign was faintness or pallor, followed by a complete loss of consciousness, a tonic spasm through-

out the body with deviation of the head and eyes to one side and fixed dilated pupils, then clonic movements of varying intensity followed by a period of labored respiration, and almost always accompanied by a facial flush. Otherwise the attack was characterized by the usual symptoms and signs of weakness and sweating, and the donor had little or no recollection of what happened. The duration of the convulsive seizures varied from twenty to sixty seconds.

5. Slowing of the venous stream, as manifested by a change from a steady flow to a dripping, may have been an early sign that the peripheral circulation was beginning to change. In 1 per cent of the donors "paling out," this sign preceded pallor by several minutes.

PREDISPOSING FACTORS

In our study the physical, environmental, and psychologic factors were tabulated from records of sex, age, height, weight, blood pressure, pulse rate, menstruation, rate of blood withdrawal, type of drink taken after donation, hunger, fatigue, apprehension associated with the first donation, pain or discomfort incident to the venepuncture, occupation, change in weather and humidity, temperature of the bleeding room, number of donations, and history of fainting associated or unassociated with blood donation.

Since the factors are so numerous and variable, the analysis of the data relative to the factors influencing the incidence of fainting could not be accurately correlated and appeared negative except for two factors which definitely influenced the incidence of reactions. The two important predisposing factors were: First time donation and the history of syncope either associated or unassociated with previous blood donation. Of the reactions 74.5 per cent occurred in first time donors in whom apprehension played a major rôle. Approximately 85 per cent of the donors giving a history of syncope, related or unrelated to a previous blood donation, experienced a reaction at this time. Many of these donors admitted the history of "fainting" after they had experienced a reaction, feeling that if they had told the truth at the time their medical history was taken at the Admission Desk they would not have been allowed to donate.

DELAYED REACTIONS

We did not follow up our donors for delayed reactions after leaving the Blood Donor Center, but Taylor¹ in a report on a follow-up of 39,642 donors found that 0.1 per cent of this group experienced delayed reactions after leaving the Blood Donor Centers.

CLINICAL TYPES

The reactions could be divided into the following clinical types:

1. Symptomatic but without loss of consciousness—
 - a. Mild—showing transitory pallor.
 - b. Severe—showing greater pallor, marked perspiration, and perhaps associated with nausea and vomiting.
2. Syncope without convulsions (Syncope implies loss of consciousness).
3. Syncope with convulsions—
 - a. Mild—Convulsive seizures lasting five to twenty seconds, without nausea and vomiting.
 - b. Severe—Convulsive seizures lasting up to sixty seconds and on rare occasions one convulsion succeeding another, simulating status epilepticus, and accompanied by nausea and vomiting, with or without tetany.

PREVENTIVE MEASURES

A. Drugs:

It was decided to investigate the possible value of coramine in the prevention of "fainting" in Blood Donors. We selected 198 donors whom we divided into two groups, 124 receiving 2 cubic centimeters of coramine in four ounces of fruit juice, and 74 as controls who received four ounces of fruit juice without coramine. These donors did not have food for three to four hours prior to the donation. The drinks were administered fifteen minutes before bleeding. The donors were selected from the following categories:

- a. First time donors.
- b. Donors who had fainted at any previous time unrelated to giving blood.
- c. Donors who had a previous reaction when donating blood.

The reason for selecting these above groups is obvious. The donors who acted as controls were told that the taking of the fruit juice would prevent any possible reaction which they might experience incident to the blood donation. Those taking coramine were not reassured. None of the donors knew that they were receiving any form of medication.

The results of the use of coramine and the data on the controls are shown in Table II and Table III.

TABLE II

DONORS RECEIVING 2 CC. CORAMINE 15 MINUTES BEFORE DONATION				
No. of Donors	First time Donors	No. of Reactions	Repeat Donors	No. of Reactions
124	31	16	93	7
23 Reactions out of 124 Donors—18.54%				
50.2% in First Time Donors				
7.5% in Repeat Donors				

TABLE III—CONTROLS

DONORS RECEIVING 4 OZ. FRUIT JUICE 15 MINUTES BEFORE DONATION				
No. of Donors	First time Donors	No. of Reactions	Repeat Donors	No. of Reactions
74	29	6	45	6
12 Reactions out of 74 Donors—16.16%				
20.6% in First Time Donors				
13.3% in Repeat Donors				

Analysis of the data showed drug prophylaxis with coramine to be of no specific value since its action could not counteract the psychic factor involved, but psychotherapy and the value of reassurance is again shown in that the number of first time donors having a reaction, who did receive either coramine or fruit juice, is reduced from 74.5 per cent in a larger series studied to 50.2 per cent in the coramine group and 20.6 per cent in the control group.

B. Fluids and Crystalloids:

Poles and Boycott² in their report on syncope in blood donors believed that the administration of glucose prior to venepuncture did not reduce the incidence of reactions, but they did feel that the infusion of one liter of saline reduced this complication in men who had lost considerable fluid through sweating in hot work shops. The saline was given two to four hours before bleeding.

C. Psychotherapy:

Ten donors were selected who had experienced reactions on previous donations. In this group were repeat donors who had donated three or more times, and on each occasion had had a reaction. The donors were handled in the following manner: The physician in attendance performed the venepuncture, and remained with the donor during the entire bleeding. The doctor was reassuring and maintained a cheerful attitude, carrying on a conversation during the entire interval and in some instances directing attention away from the procedure, or in some cases explaining the entire procedure to the donor. It was important that the conversation be continuous. In eight of the ten cases the donors were able to donate without a reaction. These eight donors later admitted that in their opinion the reaction was prevented by reassurance of the doctor, and the feeling of "security" due to the doctor's presence.

CARE OF THE DONOR EXPERIENCING A REACTION

When a donor developed a reaction during the venepuncture, the small pillow under the head was immediately removed and the donor reassured by the attending nurse that he would feel "all right" in just a few minutes. The donor's forehead was wiped with a cold moist cloth. The bleeding was discontinued if the severity of the reaction was increased by further blood loss.

The pulse rate was used as a guide as to when the donor could be moved safely from the bleeding table to the recovery room. If the pulse rate

was 60 or over the donor was allowed to walk to the recovery room supported by two people. In the recovery room the donor was placed on a cot and as soon as he felt better was allowed to sit up and have light nourishment in the form of fruit juice, coca-cola, or milk.

After the donor was able to sit up and have nourishment without experiencing any discomfort, he was allowed to get up and walk several minutes before he was dismissed by the physician in attendance, who must discharge all donors having a reaction. A donor was not released until he felt well and his pulse rate was above 60 and of good quality. Pallor was not used as a criterion in gauging the donor's recovery. The donors having a reaction were not given hot liquids while at the Center, and were instructed not to partake of hot drinks or hot foods, nor to smoke, for one hour after leaving.

It is to be pointed out at this point that medication of any form was rarely used. Barnard³ has reported the use of coramine in blood donor syncope, giving it orally in doses of 5 to 15 cubic centimeters, but he did not report the number of cases observed or the severity of the reactions in which it was used. In a few instances where the recovery period seemed slow, it was definitely hastened by the administration of an ampul of 2 cubic centimeters of coramine subcutaneously.

One hundred donors were selected who had reactions of approximately the same severity. Fifty donors were allowed up and walked to the recovery room as soon as their pulse rate was 60. The other 50 donors were allowed to remain on the bleeding table an additional ten minutes after they could have been safely moved. The latter group of donors had a delay in their recovery from ten to twenty minutes.

The incidence of tetany with carpopedal spasm was present in about 1 out of 1,000 bleedings, and usually occurred in females. These donors were best treated by having them rebreathe into a paper bag for several minutes.

DISCUSSION

The reaction that the donors experienced resembled several well-known clinical syndromes, which often entered into a consideration of differential diagnosis. These are:

1. *Hypoglycemia*: These donors resembled patients with hypoglycemia. Poles and Boycott² believed that a low blood sugar might be a contributing factor, and so they did blood sugar estimates on blood donors. In this group were 12 "fainters" (donors having reactions) and 12 controls of the same age and the same interval after a similar meal. In all cases the blood sugar level was within normal limits; the mean value

of the "fainters" was slightly lower than for the controls. Glucose 50 grams was given prophylactically to 800 people before the bleeding; alternate donors received glucose, and the others were given saccharine drinks. The "faint rate" for those who had glucose was not reduced.

2. *Carotid Sinus Syncope*: There is a very close similarity between the reactions observed in our donors and vasovagal syncope. The rôle of the carotid sinus reflex cannot be ruled out as a factor. It is interesting that recently Engel, Romano, and McLin⁵ reported a case where a patient with proved hypersensitivity of the carotid sinus reflex had experienced vasodepressor syncope on a number of occasions as during venepuncture, arterial puncture, or minor surgical procedures, but he never lost consciousness.

3. *Postural Hypotension*: The donors are bled in a recumbent position. The occurrence of symptoms in the recumbent position rules out postural hypotension as the cause of the symptoms noted in blood donors.

4. *Shock*: These donors resembled in many respects the clinical syndrome of primary shock as described in many textbooks on surgery. Since the loss of whole blood is the most common cause for surgical and traumatic shock, it is not at all unusual to consider a person who has just donated 500 cubic centimeters of blood, and who presents the symptoms of pallor, cold clammy sweat, dilated pupils, vertigo, nausea, vomiting and unconsciousness, to be in shock.

Shenkins⁶ and his associates measured the cardiac output by the use of the ballistocardiogram* in 18 voluntary blood donors and found that after the withdrawal of 500 cubic centimeters of blood there was very little alteration in the cardiac output. Green⁷ in discussing shock points out that the term "shock" is unfortunately applied to both patients with transient lowered blood pressure and patients with profound progressive decline of blood pressure. Crile⁸ stated in 1905 that "it would indeed be difficult to differentiate between prostration by fear and prostration by injury."

The blood pressures (systolic and diastolic) were recorded in 200 donors leaving the recovery room within approximately one hour after venesection. The blood pressure readings were the same or varied but a few millimeters of mercury from the pre-donation level, although the blood pressure had dropped from 15 to 40 millimeters of mercury during the reaction. The recovery period of our donors was too rapid to consider them to have been in a "state of shock." It is known that a sudden

*An apparatus for recording the momentum of the blood thrust out from the heart at each beat.

drop in blood pressure of 25 millimeters of mercury may cause complete loss of consciousness.⁹

5. *Epilepsy*: Those individuals who had convulsions revealed no history of epilepsy. Taylor¹ stated relative to further study on blood donors with convulsions, "C. Walters of the Boston Blood Donor Center and C. Moore of the St. Louis Blood Donor Center did encephalograms on a number of these donors who experienced a convulsion. In the eight tests by Moore no significant data was obtained. In four of the series of the 28 investigated by Walters the encephalograms suggested the typical pattern of subclinical epilepsy, but the findings were not conclusive." After observing numerous donors having convulsions, one is inclined to agree with Weiss¹⁰ who stated that "convulsions are an effective mechanism for improving the blood flow to the brain in persons of vasomotor failure, and may be looked upon as a necessary emergency mechanism in the presence of unconsciousness."

6. *Allergy*: As a routine in each donor, about 0.1 cubic centimeter of 1 per cent novocain with epinephrine 1:100,000 was injected prior to the venepuncture. It was believed that sensitivity to these drugs was ruled out by the fact that many of the donors who had had a reaction during their first donation returned and were able to donate repeatedly without any reaction, although the same technic was followed at each donation.

7. *Hysterical Fainting*: Romano and Engel¹¹ stated that "vasodepressor syncope can be differentiated from hysterical fainting in that the latter is unaccompanied by pallor, sweating, changes in pulse or blood pressure." Hysterical fainting usually occurs in females and in the presence of others.

8. *Myocardial Anoxia*: Myocardial anoxia may cause a decrease in cardiac output, causing pallor, cold sweat, drop in blood pressure, restlessness, with narrowing of the field of consciousness. The presence of anoxemia of the myocardium is frequently characterized by marked precordial pain which helps to differentiate it from the usual reaction seen in the blood donor in whom precordial pain is absent. In approximately 3 per cent of the donors having a reaction there was the complaint of precordial "uneasiness." Frequently a clear-cut differentiation cannot be made in the first few minutes of the reaction, and donors in the older age group (40 to 60) who develop a reaction are a source of considerable anxiety to the physician in attendance. Cookson¹² in a study of 200 patients with acute cardiac infarction noted that syncopal symptoms were prominent in fifteen, in ten at the outset, and in five in the course of illness.

9. *Hyperventilation and Hyperventilation Syndrome*: It is a well-known fact that hyperventilation is a frequent response to nervousness, apprehension, fear, and pain, particularly in those individuals who are anxious and "high strung," and the majority of the donors who have a reaction fall into this category. There has been considerable data presented in recent years to show that the blood pressure remained almost constant during forced breathing.¹³ We have observed rapid shallow respirations in our blood donors experiencing a reaction, but this occurs after the onset of pallor, and drop in blood pressure, and is undoubtedly a compensatory mechanism for the pressure drop and probable diminished cerebral flow.

CONCLUSIONS

1. In a study of 10,506 donors (6,762 females; 3,744 males) 659 reactions were observed, or 6.26 per cent. The number of convulsions which occurred was 24, or 0.3 per cent.
2. The term "syncope," or faint, is not the best term to describe these reactions, since few donors actually lost consciousness. The term "pale-out," or reaction, might be substituted for this vasomotor phenomenon.
3. The "pale-out," or reaction, occurred although the donor was in the recumbent position.
4. The important predisposing factors were:
 - a. First time donation.
 - b. Fainting related or unrelated to blood donation.
 - c. Apprehension.
5. That this phenomenon is psychosomatic is well agreed upon.
6. These reactions represented a transient fall in blood pressure.
7. Recovery occurred almost invariably without the use of any medication.
8. It was believed that early movement of the donor shortened the recovery period.
9. The best preventive measures should be proper selection of donors and reassurance to the apprehensive donor.

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SPEECH REHABILITATION AFTER LARYNGECTOMY

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The complete loss of voice produced by a laryngectomy is a severe shock to the patient, no matter how carefully he may have been prepared for it beforehand. During the early postoperative period, when his needs for physical care are frequent and sometimes very urgent, he finds himself unable to express his needs except by gesture. During convalescence he is cut off from normal communication with his family, who often react to his inability to speak in such a way as to exaggerate his feeling of helplessness and disability. On his attempt to return to normal life after discharge from the hospital, he quickly comes to appreciate how essential speech is in all social intercourse. Unless he can regain speech there are few jobs he can hold and few social activities he can enjoy.

Fortunately, the chances of developing a serviceable voice after laryngectomy are good if the patient is willing and able to make the necessary effort. Two procedures are available: the development of esophageal voice and the use of an artificial larynx. Esophageal speech is usually preferred. The tone is more natural than that produced by an artificial larynx. In most cases, greater pitch variability is possible, the quality is less harsh and metallic, and, with training, voiced and unvoiced sounds can be produced and combined more naturally. Then, too, an artificial larynx is conspicuous, requires care, and leaves the patient without speech when it is in disrepair or otherwise not immediately available. In cases where esophageal speech cannot be developed, an artificial larynx may be used. Many patients find these artificial larynges quite satisfactory and are enabled by them to carry on an active business and social life.

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There are two types of artificial larynx available: a "buzzer" type which is electrically driven by current supplied by batteries, and a "reed" type which is air driven. In the buzzer type, the vibrating mechanism consists of a diaphragm encased in a shell. This is placed against the throat and, when the current is turned on, produces a buzzing noise which may then be articulated (formed into words) in the usual way. This type of device is occasionally used on the screen and in radio work to produce unusual voice effects, such as are employed with some animated cartoons. The air-driven type, of which there are several designs, consists essentially of a tube, one end of which is fitted over the tracheal opening and one end of which is placed in the mouth. The tube contains a reed which is set into vibration by the air stream passing into the tube from the tracheal opening. These vibrations are conveyed up the tube into the mouth where they are articulated. The performance of different artificial larynges varies widely. At present there are no accepted criteria for evaluation, although the Council on Physical Medicine is attempting to formulate standards. Lacking such standards, the following factors should be taken into consideration in selecting an artificial larynx: cost, likelihood of mechanical difficulty, ease of cleaning and replacing of parts, quality of tone produced, possibility of pitch variation, comfort, degree of interference with articulation, and, in the air-driven models, the strength of the air-blast required to operate the reed.

When a pseudovoice can be developed, as it can in most cases, it is to be preferred to an artificial larynx. There are several different ways of producing a pseudovoice. Occasionally, according to Jackson, a small fistula from the pharynx can be left to provide an airway for the trachea, so that air pressure from the lungs can be used to drive a pseudoglottis. The presence of such a fistula, unfortunately, increases the postoperative risk of ingestion of foreign matter into the trachea through the opening, unless a remainder of the epiglottis happens to close the fistula during the swallowing.

A second type of pseudovoice is called the "buccal whisper." This is a whisper which many patients develop spontaneously. The whispered speech is produced by buccal or buccolingual compression of air held in the mouth. The resulting sound is not loud enough to be useful, except in a quiet place and over a short distance.

A third, and the most commonly used, type of pseudovoice is the esophageal voice. This is produced by a pseudoglottis located in the hypopharynx or esophagus and activated by air pressure from an esophageal reservoir or from the stomach.

The most satisfactory speech is that in which the pseudoglottis is formed probably by the cricopharyngeus muscle and in which the air supply comes from an esophageal pocket rather than from the stomach. The development of this type of voice will be discussed in the present paper.

An important consideration in the development of esophageal speech is the attitude of the patient. Psychologically, a laryngectomy is a very traumatic experience. The patient suddenly discovers that he is unable to talk. He cannot dislodge objects from his throat by coughing, or sneezing, or blowing his nose. The disruption of these important conservative functions produces an initial anxiety not unlike that observed in patients suffering respiratory distress. In addition to this physiologic threat, the loss of voice also constitutes a severe psychologic threat. The patient finds himself unable to communicate readily with others, incapacitated for his work, and unable to participate in most forms of social activity. This inability to express himself, plus his fear of a recurrence of the disease which has necessitated the laryngectomy, causes many patients to become hopeless about the improvement of their condition and to accept unnecessarily the status of a chronic invalid. To a considerable extent, these undesirable reactions can be minimized or even avoided by the proper psychologic preparation of the patient. Such preparation must include: (1) A careful, tactful interpretation to the patient of the nature of his condition, the type of operation required, and as favorable a statement of the prognosis as the patient's condition warrants; (2) a detailed description of the way in which the operation will affect established functions, including speaking, breathing, coughing, sneezing, smelling, expectorating and lifting, so that the patient may be prepared for these changes and the anxiety minimized; and (3) an encouraging statement about the possibility of regaining speech, reinforced if possible by conversation with a laryngectomized patient who has succeeded in developing good speech or by recordings or sound films* of good esophageal voices. The importance of this preparation cannot be overemphasized, since its success frequently determines whether or not the patient will make the effort which is necessary if he is to rehabilitate himself.

The surgical procedure which has been used is another factor affecting the development of esophageal speech. From the standpoint of speech, there are two basic desiderata: an easily distensible hypopharynx and upper esophagus and a means by

which a pseudoglottis can be formed. On clinical and theoretic grounds, it appears to be desirable to preserve the cricopharyngeus muscle and its nerve supply, to attach the infrahyoid muscles to the pharynx near the level of the esophageal opening and to avoid overlapping the ends of the inferior constrictor to such an extent that the hypopharynx is compressed.

The first step in the development of esophageal speech is to teach the patient to take air into the esophagus. There is some evidence to indicate a higher incidence of success in cases in which this stage is begun prior to operation. There are two procedures which may be used. Air may be drawn into the esophagus by closing the glottis firmly (if training is preoperative) or by placing the finger lightly over the tracheal opening (postoperatively) and expanding the thorax. This causes air to be sucked into the esophagus. Care must be taken not to place so much pressure on the tracheal opening that the esophagus is compressed. The second method is to take air into the mouth and force it into the esophagus by swallowing. In the initial stage of training either method is satisfactory. Ultimately, most patients become able to aspirate air easily and automatically. Preoperatively, the patient can profitably spend a few minutes every half hour during the day practicing this intake of air. Postoperatively, such training is not begun until the wound is completely healed and the patient is able to swallow comfortably. Care must be taken not to allow the patient to overdo. A few minutes of practice, four or five times a day, are all that should be attempted at first.

The second step in training involves learning to force air out of the esophagus in such a manner as to produce a sound. The expulsion of air from the esophagus is accomplished by contraction of the normal expiratory musculature of the thorax. This process is facilitated if the tracheal opening is again occluded by the finger, although ultimately the patient must learn to dispense with this. The tone is probably produced in most cases from a pseudoglottis formed by constriction of the esophagus by the cricopharyngeus muscle. When the patient is able to take in air, expel it, and produce tone, the most difficult stages are passed.

He must learn to articulate the tone produced by the pseudoglottis to form the various sounds of speech. The easiest sounds with which to start are the pure vowels: *a* (arm), *a* (at), *e* (beet), and *oo* (shoot). Next the diphthongs *o* (no), *i* (my), *oi* (boy), and *au* (out), which require slightly longer tone and involve tongue movement, are taught. These may be followed by certain short words and phrases, such as *Oh, no, Oh, yeah*, and *I*

*Phonograph records or 35 mm. sound film of esophageal speech may be obtained on loan from the author, Psychological and Speech Clinic, State University of Iowa, Iowa City, Iowa.

know. The patient is then taught to produce the unvoiced consonants, *p, t, k, s, sh, ch*, etc., using buccal air only—not esophageal tone. Vowels are next combined with unvoiced consonants in words such as *eat, each, at, us, tea, key, see, teach*. From words, the patient progresses to short sentences with a separate intake of air for each word—as *I / ate / a / peach. Keep / at / it. I / can / go today*. Finally, he learns somewhat longer phrases and is given practice in oral reading and conversation.

At first, aspiration of the air is slow and difficult, the quantity small, the outflow of short duration, and the tone lacking in strength. With practice, however, the intake becomes easier and more rapid, the outflow is sufficiently prolonged to allow the production of several syllables on a “breath” and the tone becomes louder. Ultimately, unless difficulties arise, the patient is able to carry on all the conversation required to run a retail business and can talk so normally that casual observers are unaware that there is anything unusual about his speech.

CLINICOPATHOLOGIC CONFERENCE

THROMBOSIS OF THE RENAL VEINS

Report of a Case Following Arthroplasty and
Cellophane Implantation in a Patient With
Rheumatoid Arthritis and Amyloidosis

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CASE REPORT

Clinical History: On admission the entrance complaint of this patient, a white male, forty-five years of age, was restriction of motion of all joints with deformities of arms and legs. The patient was well until 1922. In 1922, while playing ball, the patient's hands became swollen and painful. The swelling gradually involved the wrist joints. He visited a spa and thereafter was able to resume his work as a farmer. After 1924 the joints of his upper and lower extremities were painful, but the intensity varied considerably from day to day. In 1926 his tonsils were removed with no benefit to his joint symptoms. That same year he again visited a spa. He stated that the hydrotherapy helped him considerably. The next four years he worked hard as a farmer, each year spending one month at a spa. During this time he had frequent swelling and pain in his arms and legs. In 1930 he stopped work and went to a hospital for four

months. The hospitalization resulted in no benefit. He left the hospital and once more went to a spa, this time with practically no improvement. He then went to a hospital in Arizona, where he remained eighteen months. There, he stated, his condition became considerably worse. He developed many deformities and was unable to walk. About two months were required for these deformities to develop. He said that at the hospital his temperature remained around 101 degrees most of the time. In August 1943 he went to another hospital.

Physical Examination: At the last hospital examination revealed the patient to be well nourished. The skin was glossy over the fingers and toes. The heart and lungs were apparently normal. The spleen was enlarged. The blood pressure was 128/74. Both knees were fixed in marked flexion. There was restriction of motion in all joints including the neck. The left and right elbows were fixed in marked flexion. The hips had only moderate range of motion. The spine had moderate motion. The muscles of all extremities showed moderate atrophy. There were spindle-shaped deformities of the fingers.

Laboratory Examination: The blood cell counts were normal. The urine was normal. The sedimentation rate (Wintrob) was 88 millimeters per hour.

Progress: Shortly after admission a series of surgical procedures was done for the correction of the deformities. On October 27, 1943, he had an arthrodesis of the left knee. On December 2, an arthrodesis of the left elbow joint was done. On February 4, 1944, he had arthroplasties of the fingers of the left hand. On April 30, he had arthroplasty of right knee with a cellophane implant. Following the last surgical procedure he developed a pyarthrosis followed shortly by a marked oliguria. For the oliguria he was given concentrated glucose and saline intravenously. During the first ten days following operation he passed only one to six ounces of urine daily, and thereafter he had a complete anuria. He was rational at all times. On May 15 he developed a pericardial friction rub. On May 17, 1944 he suddenly expired.

Clinical Diagnoses:

1. Uremia, secondary to nephritis.
2. Arthritis, atrophic, chronic, severe.
3. Pyarthrosis, right knee.

AUTOPSY

At autopsy the principal findings were limited to the joints, kidneys, and renal veins. Considerable swelling of the left knee was noted. Dissection of the joint revealed 100 cubic centimeters of thick

purulent exudate. The cellophane implant was present between the tibia and femur. The pus in the joint space communicated with a massive abscess of the right thigh through a defect in the suprapatellar pouch. The abscess extended to, but not into, the right hip joint. Examination of other peripheral joints revealed changes of the type usually seen in advanced rheumatoid arthritis. Both kidneys were enlarged. The right kidney weighed 315 grams; the left kidney weighed 280 grams. The capsules could be stripped away readily from the underlying parenchymas. Both organs had a mottled appearance with gray areas alternating with small brown areas. The cut surfaces showed alteration of the architecture. The cortices of both kidneys were thick and pallid. The pars radiata were not distinct and in many places the cortical medullary junctions could not be differentiated. Both renal veins were occluded by brownish red, fragile tissue that was firmly adherent to the intimas of both vessels. The thrombus on the right measured 1 centimeter in length. It extended distally into all of the branches. On the left the thrombus measured 2 centimeters and again all the branches were occluded by the thrombus. In the smaller branches the thrombi had a striated appearance. The pelves and calices were not dilated but were lined by an injected mucosa. Both ureters were normal in size, shape, and position. There was no cross connection between the thrombi of the renal veins.

Microscopically, the small amount of cartilage remaining after the arthroplasty was degenerated with the denuded surface of the bone covered by fibrin and pus cells. The subjacent marrow dis-

played marked osteoporosis. The synovial membrane and abscess cavity were lined by necrotic debris and granulation tissue. Sections of the renal tissue showed amyloidosis. Many of the glomeruli were normal in size, measuring about three-fourths the diameter of a high power field. In practically all the glomerular tufts there were deposits of amyloid in the form of amorphous acidophilic material. The tufts contained practically no blood. Although a few of the tufts were fused, most of them could still be differentiated. The subcapsular spaces were reduced in width and obliterated in some areas. Sprinkled throughout the section were areas in which the glomeruli were considerably reduced in size, the tubules collapsed and the interstitial tissue heavily infiltrated by lymphocytes and plasma cells. Between the basement membranes of many of the tubules and the supporting connective tissue, as well as the small blood vessels, material was observed which resembled that present in the glomeruli. The lumina of the renal veins of both kidneys were occluded by acidophilic amorphous anastomosing laminae with the intervening areas occupied by fibrin, masses of red blood cells, and leukocytes. Both renal pelves were infiltrated by scattered lymphocytes, plasma cells, and large mononuclears. Amyloid deposits were also present in the liver, adrenal glands and spleen, as well as in the axillary lymph nodes.

Anatomic Diagnoses:

1. Rheumatoid arthritis, peripheral joints, severe.
2. Amyloidosis, kidneys, adrenal glands, liver, spleen, and lymph nodes.
3. Thromboses, renal veins, complete.
4. Abscess, right knee joint, secondary to arthroplasty, April 30, 1944.
5. Abscess, massive, right thigh, secondary to suppuration of right knee joint (hemolytic *Staphylococcus aureus*).
6. Uremia (clinical).
7. Edema, pulmonary, bilateral, moderate.
8. Pericarditis, acute, fibrinous, secondary to uremia.
9. Hydrothorax, bilateral.
10. Splenomegaly.
11. Lymphadenopathy, generalized, (reactive hyperplasia).
12. Pyelitis, bilateral, moderate.

CASE SUMMARY

In summary, this is a case of a white male forty-five years of age who over a period of twenty-one years developed progressively severe arthritis. Eventually, because of medical negligence in preventing deformities, the patient was rendered an arthritic derelict. In October 1943 a series of surgical assaults on the deformed joints was begun. These procedures consisted of an arthrodesis of the left knee, of the left elbow joint, arthroplasties of the fingers of the left hand, and an arthroplasty of the right knee with an intra-articu-

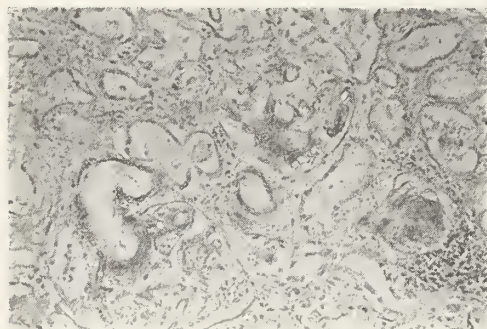


Fig. 1. Photomicrograph of renal tissue stained with crystal violet. Amyloid deposits can be seen in the glomerular tufts and renal tubules. A.M.M. Neg. No. 81839 (x 110).

played marked osteoporosis. The synovial membrane and abscess cavity were lined by necrotic debris and granulation tissue.

Sections of the renal tissue showed amyloidosis. Many of the glomeruli were normal in size, measuring about three-fourths the diameter of a high

lar cellophane implantation. The last operation was followed by pyarthrosis, oliguria and anuria, with death from uremia occurring seventeen days after operation. At autopsy there was amyloidosis of the liver, spleen, kidneys, adrenal glands, a bilateral thrombosis of the renal veins, and a pyarthrosis of the right knee with massive extension of the abscess into the soft tissues of the thigh.

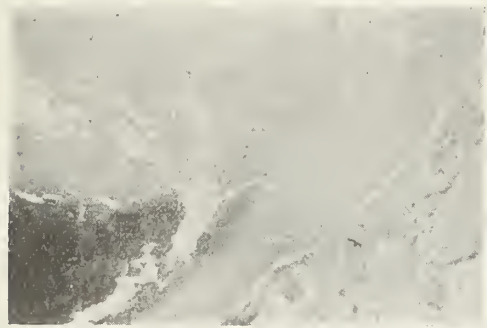


Fig. 2. Photomicrograph of renal vein. The lumen of the vein is occupied by a newly formed thrombus. No apparent inflammatory reaction is noted in the wall of the vein. A.M.M. Neg. No. 81838 (x 110).

DISCUSSION

The use of cellophane implants in orthopedic surgery is not generally accepted by conservative orthopedists. The little use it has received followed the extreme claims of Wheeldon¹ that it could be used with perfect impunity for lining joints, as an artificial tendon sheath, that it did not act as a major foreign body, that it was non-irritant, and that it remained unabsorbed indefinitely.

On two occasions the author has had opportunity to examine extremities, which, several months prior to amputation, had cellophane implants inserted into the joint space. Both of these cases showed a violent inflammatory reaction with conspicuous foreign body type of giant cells. Most of the giant cells were filled with cellophane fragments. In one of the cases² the granulation tissue extended through the cellophane at several different points. In neither of the cases was there any regeneration of the synovial membrane. Furthermore, in both cases there was almost complete dissolution of the remaining articular cartilage. This dissolution was presumably secondary to the presence of autolytic enzymes accompanying the inflammatory reaction.

Also of special interest in the present case was the amyloidosis and renal vein thrombosis. The incidence of amyloidosis in rheumatoid arthritis is 6.6 per cent.³ The occurrence of amyloidosis in rheumatoid arthritis makes it mandatory that the presence of amyloid deposits be tested for when any major surgery is contemplated.

So far as the literature is concerned, the diag-

nosis of renal vein thrombosis complicating amyloidosis has been made during life in only one instance. This is in a report by Vilk.⁴ The same author reviews 249 autopsies of amyloidosis done at the pathologic anatomy institute in Moscow. He states that renal vein thrombosis was present in 13 cases, constituting an incidence of 5.2 per cent. Of the 13 cases the thrombosis was bilateral in all but one. The same author stresses that most of the cases of renal vein thrombosis were associated with intercurrent infection. In the case reported the intercurrent infection was a pyarthrosis. Tabulation of the data on the 13 cases reported by Vilk revealed that the common symptoms of renal vein thrombosis in renal amyloidosis are oliguria, anuria, albuminuria, and a rapidly developing azotemia. The pathogenesis of the thrombosis is not clear. Vilk speculates that the thrombosis is related to a disturbance of the chemical composition of the blood produced by intercurrent infection but fails to indicate what the relation is. It would seem logical that the slowing of the circulation through the amyloid kidney is undoubtedly of great importance. An additional factor to be considered in the case reported was the bilateral pyelitis. It is conceivable that a localized phlebitis beginning in a small venous tributary initiated the thrombi which by propagation eventually involved larger and larger branches. The possibility of such a pathogenesis—that is, slowing of the circulation and a localized phlebitis of a small vein—is supported by the fact that in the foregoing case the smaller veins contained the older appearing thrombi, whereas the process in the main trunks of both renal veins was much more recent. One patient reported by Vilk had hypertension. In three of his cases there was epigastric pain, apparently of sufficient intensity that clinically myocardial infarction was suspected. In the cases in which a unilateral renal vein thrombosis was present the symptoms were essentially the same as in the cases having bilateral thrombosis. Vilk explains this on the basis of a renorenal reflex.

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STATE DEPARTMENT OF HEALTH

Walter L. Downing

POLIOMYELITIS IN IOWA—1945

Cases of poliomyelitis as notified to the State Department of Health in 1945 (through October 13) totaled 229. The *expected* number of cases of this disease for the first ten months of this year, namely 77, is based on the average of month-by-month reports for the nine-year period 1935-1943.

The following table shows cases as notified by months from ten counties reporting greatest prevalence of the disease :

POLIOMYELITIS IN IOWA—1945						
Distribution by Months in Ten Counties Reporting Most Cases (Through October 13)						
June	July	August	September	October (thru 13th)	Totals	
Cerro Gordo. 0	0	13	19	3	35	
Polk 0	1	9	7	10	27	
Floyd 0	0	7	6	5	18	
Hancock 0	0	4	5	8	17	
Mitchell 0	0	9	1	1	11	
Winnebago 0	0	0	7	4	11	
Clay 2	0	1	4	2	9	
Woodbury 0	0	1	5	3	9	
Kossuth 0	0	2	2	3	7	
Black Hawk. 0	0	6	0	0	6	
TOTALS 2	1	52	56	39	150	

Thirty-eight other counties and cases as reported from each are as follows: Clinton (6), O'Brien (5), Wright (5), Howard (4), Linn (4), Story (4), Winneshiek (4), Grundy (3), Mahaska (3), Warren (3), Webster (3), Worth (3), Appanoose (2), Clayton (2), Lyon (2), Page (2), Sac (2), Union (2). One case was notified from each of the following counties: Boone, Cherokee, Chickasaw, Clarke, Dallas, Fayette, Hardin, Humboldt, Ida, Jasper, Jones, Keokuk, Marion, Osceola, Palo Alto, Pocahontas, Poweshiek, Tama and Taylor.

NOTES AND QUOTES ON DDT

Current prevalence of poliomyelitis and demonstrations in several areas have stimulated much interest in and discussion of DDT, now widely publicized as a remarkable insecticide.

As part of the program of malaria control in war areas, the United States Public Health Service recently published a "Handbook of DDT Residual Spray Operations" (March, 1945). The following paragraphs are quoted from the Handbook :

"This new insecticide has a remarkable ability to kill insects, and it is very effective, even in very small quantities, against a wide variety of insect pests . . .

"DDT (dichloro-diphenyl-trichloroethane) is a fine white powder with a tendency to lump when not mixed with other substances . . . when DDT is sprayed on walls and ceilings in an emulsion or solution, it leaves a deposit of tiny crystals. This residue kills insects if they rest on such sprayed surfaces long enough to obtain sufficient exposure.

"Just how DDT kills is not fully understood at present. DDT is evidently absorbed through the insects' feet as they rest on or walk over sprayed surfaces. After a short period of exposure, the affected insects become restless, drag their legs, their movements become jerky and spasmodic, and they finally develop tremors (the 'DDTs') and die."

PREVALENCE OF DISEASE

Disease	Sept. '45	Aug. '45	Sept. '44	Most Cases Reported From
Diphtheria	5	8	11	Black Hawk, Davis, Johnson
Scarlet Fever	72	50	66	Polk, Dubuque, Washington
Typhoid Fever ...	4	15	20	Bremer, Floyd, Hancock, Polk
Smallpox	0	0	1	
Measles	5	22	5	Cedar, Clinton, Linn
Whooping Cough .	19	47	30	Des Moines, Mitchell, Story
Brucellosis	16	14	32	Black Hawk, Clayton, Fayette
Chickenpox	23	20	8	Dallas, Dubuque, Calhoun
German Measles ..	4	4	4	Dubuque
Influenza	0	0	0	
Malaria	29	80	21	Clinton, Polk, Benton
Meningococcus				
Meningitis	4	5	2	Hardin, Howard, Polk, Taylor
Mumps	33	53	39	Washington, Dubuque, Black Hawk
Pneumonia	7	3	9	Black Hawk, Allamakee, Bremer
Poliomyelitis	92	68	60	Cerro Gordo, Winnebago, Polk
Tuberculosis	73	60	58	For the State
Gonorrhea	232	225	249	For the State
Syphilis	133	86	121	For the State

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DEFEAT OR MODIFICATION OF S. 1318 IMPERATIVE

If the Pepper Bill becomes enacted into law, the die will have been cast in the direction of governmental and political medicine from which it is most unlikely that there would ever be any turning back. It therefore becomes imperative that every possible effort be made that S. 1318 either be defeated or become modified in such a way that a governmental agency cannot participate in the practice of medicine. The issue which ought to be placed clearly before Congress would seem to be fairly clear-cut. On the one hand is a governmental agency under a single head being given a large sum of money with the objective of bringing improved medical care to mothers and all children under twenty-one. On the other is a program of the physicians, who are equally interested in bringing improved care to mothers and children but also to all other of our people.

The doctors' program has been set forth in the fourteen points adopted by the Council on Medical Service and Public Relations and the Board of Trustees of the American Medical Association on June 22, 1945. Briefly, this program embraces efforts already in operation or contemplated which in a ten year period, we believe, would advance the distribution and quality of medicine the nation over more than will be possible under either the Pepper or Wagner Bill and upon a more sound and democratic basis. The Blue Cross with its eighteen million subscribers is already proving of tremendous benefit to large numbers of people and, furthermore, it is growing rapidly. Medical service plans are through with the experimental stage and their soundness has been demonstrated. Many states have programs under way and others

are getting theirs started. The hospital building program has the thorough approval of all physicians. If it becomes a reality and improved facilities become available in rural areas, it can be confidently expected the problem of rural medicine will have been satisfactorily met, for our well-trained young doctors will be attracted to such areas if facilities are available which permit them to carry on the quality of medical practice for which their training has fitted them. Even now there is a noticeable trend in this direction. The American Legion and the National Congress of Parents and Teachers each has a national health program which in the postwar period will undoubtedly be expanded and become a real factor in improving health standards in the nation. The National Foundation for Infantile Paralysis is doing a remarkable job, not only in the sponsoring of research in the various phases of the disease but in providing funds for the care of every victim of this disease who needs them. In addition to these there are the numerous community, county, and state programs by both lay and medical organizations, all under private initiative and all working toward one goal of creating better health for more people in America. The effect of the Pepper Bill would inevitably be to substitute governmental control for private enterprise. The Blue Cross and medical service programs would suffer because people would not buy insurance to protect themselves if the government were providing medical care for wives and children. And what incentive would there be for organizations such as the American Legion and National Congress of Parents and Teachers to carry on their valuable voluntary programs if the whole job of maternal and child health were to become a governmental function?

The doctors cooperated with the EMIC program because of the patriotic factor which was involved, although they disliked many of its administrative features. With the patriotic factor removed, it cannot be expected that they will continue to cooperate in a super EMIC program with similar administrative restrictions. Their full cooperation, however, will be forthcoming in all of the aforementioned programs with the net result that medicine will be extended upon a democratic, sound basis, which is the American way of living. The Pepper Bill proposes governmental, political medicine. We are at the crossroads; let's be sure we take the right road now.

CARRIER STATE IN POLIOMYELITIS

Exact knowledge concerning the mode of infection, transmission of the virus to the central nervous system, and the incubation period in poliomyelitis is still lacking. However, studies such

as that reported by Brown, Francis and Pearson in the September 8 issue of the *Journal of the American Medical Association* shed considerable light upon some of these phases. The authors had unusual opportunity to observe what happened to a group of boys when they were suddenly brought in contact for the first time with an infected camp mate. The latter developed poliomyelitis five days after the opening of the camp. Four days later the camp was visited by the authors. Stool specimens and throat washings were obtained from six of the seven boys who lived with the patient and specimens were also obtained from most of the remaining boys in the camp. In five of the six cabin mates virus was demonstrable in the stools, indicating that these boys had become infected in the period of six days during which they were living with the patient. Stools from the campers living in other cabins were all negative for poliomyelitis virus. One of the six boys whose stool was positive for poliomyelitis virus became ill and developed paralytic poliomyelitis nineteen days later. The authors state that few flies and mosquitoes were seen or trapped. Screening was uniformly carried out and the dining room and kitchen were clean and well run.

While positive conclusions perhaps cannot be made from this one study, yet it does suggest that direct contact rather than the insect vector was the major factor in the spread of the poliomyelitis virus in this camp. It further suggests that the incubation period following acquisition of the virus and before symptoms of disease develop may be considerably longer than is usually accepted. Two other definite factors can be deduced. One is that children may harbor the virus in their intestinal tracts and not develop the disease as happened in four of the five boys who were cabin mates of the patient. The second is that stools harbor the virus to a greater extent than nose and throat washings. It would seem important that in the isolation technique in the acute stage of poliomyelitis special attention should be paid to sterilization of excreta before it is discharged into sewage or otherwise disposed of.

G. I. RIGHTS FOR GRADUATE EDUCATION OF PHYSICIAN VETERANS

It has come to the attention of the JOURNAL that several physicians recently discharged from the service were unaware of their status under the G. I. Bill of Rights in relation to postgraduate training. For the information of these and for other physician veterans the JOURNAL summarizes the following points in the November 11, 1944, issue of the *Journal of the American Medical Association*:

1. "Any person who served in the active military or naval service on or after September 16, 1940 and prior to the termination of the present war and who shall have been discharged . . . and whose education or training was impeded, delayed, interrupted or interfered with by reason of his entrance into the service . . . and who either shall have served ninety days or more . . . shall be eligible for and entitled to receive education or training under this part."

2. Discharged servicemen under 25 years of age at the time they entered the service are assumed to have had their education impeded or delayed, while those 25 years of age or over at the time they entered the service will be expected to supply evidence that such a delay or obstacle to their education occurred.

3. Those in service three months are entitled to one year further education; those in service twelve months are entitled to two years further education; those in service twenty-four months are entitled to three years further education.

4. If a physician veteran wishes a residency in a qualified institution in his specialty, the tuition for the physician veteran can be paid to that hospital even though the hospital still continues to pay a stipend to the veteran.

5. The subsistence allowance of \$50 per month if without a dependent or \$75 per month if with dependent or dependents may be paid to the physician veteran during the period of his residency even though a stipend be received from the hospital.

6. Physician veterans who wish to take shorter periods of training or who wish to devote part time for a period of training are also entitled to benefits under the G. I. Bill.

The individual situation in each case will be carefully considered. Therefore, every physician veteran who seeks any type of medical training following his discharge should not fail to investigate fully the benefits to which he is entitled under the G. I. Bill of Rights.

HOSPITAL RESIDENCIES FOR RETURNING VETERANS

Under the G. I. Bill of Rights, the governor of each state is empowered to approve educational institutions for the training of returning veterans. For the main part, of course, this will have to do with regular colleges and universities, but since medical officers are eligible for further educational training under the bill, it will also include hospitals which offer residencies.

Ordinarily the Council on Medical Education and Hospitals inspects hospitals which wish to

offer residencies and if they meet the standards, the Council approves them. These residencies will be open to both returning veterans and civilian doctors.

However, under the G. I. Bill, other hospitals may be approved for residencies for physicians returning from military service, although residencies of this type will not be open to doctors who have not been in service. There may be hospitals in Iowa which would be interested in offering some residencies, either rotating or specialized, under the provisions of this bill. Procedure for obtaining approval is as follows:

First, the staff of the hospital should work out a program for resident training, determining what it is qualified to offer. Second, a statement of the wishes of the staff of the hospital, together with a statement of what it can provide for resident training, should be sent to the office of the Iowa State Medical Society. The State Society will then pass on the request and, if it seems sound and legitimate, will recommend to the Governor that such a hospital be approved to take care of those doctors who wish to do some postgraduate work under the G. I. Bill.

Residencies of this type will prove to be a great help in providing the further training which most returning physicians desire, and should also be beneficial for the staff members and the patients of the hospitals. It should be pointed out, however, that residencies in institutions approved by the Governor but not recognized by the Council on Medical Education and Hospitals cannot be counted as training toward meeting the requirements of a specialty board for examination for certification.

CRYING OF NEWBORN BABIES A PROTECTIVE REFLEX

In grandmother's day babies got rocked and fed when they cried, thus their psychologic needs received attention but their physiologic needs were not as successfully met. Hence the infant mortality rate from improper food, starvation, and diarrhea was relatively high. This era was followed by a swing of the pendulum to the far left and the so-called scientific period of infant feeding and care took place. In this period babies were "scheduled" by the clock. Food, that is the quality and quantity, was based on caloric requirements, and this and no more was the infant required to take. "Spoiling" was a word much in usage and parents were warned against the rocking chair and expres-

sion of over-affection lest the child become a "mother's child." Now the pendulum seems to be swinging the other way. The rationale of this so-called scientific age of raising infants is beginning to be questioned. In the meantime tremendous progress has been made in meeting very satisfactorily the physiologic needs. In other words, the nutrition of infants has become so well established on a scientific basis that it no longer presents much of a problem and the infant mortality rate has gone down to unbelievably low levels compared to what it was a quarter of a century ago.

Now the baby's psychologic needs and reactions are coming in for a thorough overhauling by people especially trained for this type of work. A study of especial interest is one reported by C. Anderson Aldrich, M.D., of the Mayo Clinic in the August issue of *The Journal of Pediatrics*. Dr. Aldrich and his associates set out to ascertain how much, when, and why newborn infants in the hospital nursery cried. Fifty such infants were under constant observation by four individuals for a period of eight days. The length of time, time of day or night, and accompanying conditions insofar as they could be determined were set down. It was found that on the average each of the fifty babies cried about two hours a day. The baby who cried the most cried approximately four hours while the baby who cried the least cried about three quarters of an hour. Naturally crying increased with the approach of feeding hours, but aside from this two peaks greater than any others were noted. One was around 6:00 p. m. and the other around midnight. These were the times when the amount of nursing care was the least. When attempts were made to evaluate the causes of crying, 35 per cent appeared to be associated with hunger, some 20 per cent with wet diapers, 8 per cent with soiled diapers, and one-half of 1 per cent with the fact that the baby had vomited. This left 35 per cent for which no adequate cause for crying could be accounted.

In discussing the study Aldrich points out that the cry of a newborn baby is a necessary reflex protective mechanism for the purpose of calling attention to his needs. This view is further substantiated by the fact that there is a gradual disappearance of the cry as need for it lessens. Among the unknown causes he suggests such stimuli as bright lights, peristaltic movements, loud noises, perhaps a need for fondling, and a lack of rhythmic motion to which the baby had become accustomed in its intra-uterine existence. Thus the use of the rocking chair by grandmother may ultimately receive scientific sanction.

President's Page

DISCHARGE OF MEDICAL OFFICERS

The rate of discharge of medical men serving in the Army is practically the same percentage as the rate of discharge of personnel. No figures are available for the Navy.

Our Senators and Representatives in Washington are much concerned over the problem of medical service in Iowa. They are besieged with letters, telegrams, and petitions from constituents requesting aid for certain localities which must have better medical care. Collectively they are urging the War Department to speed up the discharge of doctors essential to their communities. Individually, they are stymied by the fact that the requests originate in the wrong place.

A request for discharge should be made by the doctor in service to his commanding officer. He should also indicate what he intends to do when discharged; for example, return to his local community, change location, or take postgraduate work. Former patients may urge their Congressman to present their claims to the Navy or War Department, only to have the Congressman told that the doctor has no desire to leave the service or that he has no intention of returning to his former location. This has happened many times.

Procurement and Assignment Service or the State Medical Society can be of little assistance until the medical officer has, first, applied for discharge, and second, indicated his intention to return to his former location; then with the assistance of local businessmen or his County Medical Society an application may be made to the Navy or War Department directly or through his local Congressman.

R. S. Bernard, M.D.

President, Iowa State Medical Society.

Roster of Iowa Physicians in Military Service

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Riedesel, E. V., Wheatland (Fort Douglas, Utah)
Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.)Capt., A.U.S.
Snyder, D. C., De Witt (APO 520, New York, N. Y.)Capt., A.U.S.
Speigel, I. J., Clinton (Galesburg, Ill.)Capt., A.U.S.
Van Epps, E. F., ClintonCapt., A.U.S.
Waggoner, C. V., Clinton (Fleet PO, San Francisco, Cal.)Lt. Comdr., U.S.N.R.
Wells, L. L., Clinton (APO 562, New York, N. Y.)Capt., A.U.S.

Crawford County

Fee, C. H., Denison (APO 696, New York, N. Y.)Major, A.U.S.
Grau, A. H., Denison (Oceanside, Cal.)Lt. Comdr., U.S.N.R.

Maire, E. J., Vail (Humphrey, Nebr.).....Capt., A.U.S.
 Wetrich, M. F., Manilla (Topeka, Kan.).....Capt., A.U.S.

Dallas-Guthrie Counties

Butterfield, E. T., Dallas Center (Palm Springs, Cal.).....1st Lt., A.U.S.
 Byrnes, A. W., Guthrie Center (Fort Custer, Mich.).....Major, A.U.S.
 Fail, C. S., Adel (Fleet PO, San Francisco, Cal.)....Lt. U.S.N.R.
 Margolin, J. M., Perry (APO 350, New York, N. Y.).....Capt., A.U.S.
 McGilvra, R. I., Guthrie Center.....Lt., U.S.N.R.
 Mullmann, A. J., Adel (APO 565, San Francisco, Cal.).....Capt., A.U.S.
 Nicoll, C. A., Panora.....Major, A.U.S.
 Osborn, C. R., Dexter (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Wilke, F. A., Woodward.....Capt., A.U.S.

Davis County

Fenton, C. D., Bloomfield (APO 5253, New York, N. Y.).....Capt., A.U.S.
 Gilfillan, G. W., Bloomfield.....Lt. Comdr., U.S.N.R.

Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.).....Capt., A.U.S.
 Clark, R. E., Manchester (APO 419, New York, N. Y.).....Capt., A.U.S.

Des Moines County

Eigenfeld, M. L., Burlington (Cleveland, Ohio)....1st Lt., A.U.S.
 Heitzman, P. O., Burlington (Fort Lewis, Wash.)...Capt., A.U.S.
 Jenkins, G. D., Burlington (West Point, N. Y.)....Col., A.U.S.
 Lohmann, C. J., Burlington (APO 1055, San Francisco, Cal.).....Lt. Col., A.U.S.
 McKitterick, J. C., Burlington (Hamilton, R. I.).....Comdr., U.S.N.R.
 Moerke, R. F., Burlington (APO 565, San Francisco, Cal.).....Major, A.U.S.
 Sage, E. C., Burlington (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

Dickinson County

Buchanan, J. J., Milford (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Henning, G. G., Milford (San Antonio, Texas).....Major, A.U.S.
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.).....Capt., A.U.S.
 Rodawig, D. F., Spirit Lake (Topeka, Kan.).....Major, A.U.S.

Dubuque County

Anderson, E. E., Dubuque (Bradley Field, Conn.)...Capt., A.U.S.
 Conzett, D. C., Dubuque (APO 887, New York, N. Y.).....Lt. Col., A.U.S.
 Cunningham, J. C., Dubuque (Fairfield, Ohio).....Capt., A.U.S.
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.).....Major, A.U.S.
 Hall, C. B., Dubuque (APO 11331, New York, N. Y.) Capt., A.U.S.
 Knoll, A. H., Dubuque (San Francisco, Cal.).....Major, A.U.S.
 Langford, W. R., Epworth (Miami Beach, Fla.)....Capt., A.U.S.
 Lavery, H. B., Dubuque (Washington, D. C.)....Lt. Col., A.U.S.
 Leik, D. W., Dubuque (Wichita Falls, Tex.).....Capt., A.U.S.
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.) Capt., A.U.S.
 Olson, P. F., Dubuque (San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Painter, R. C., Dubuque (Salt Lake City, Utah)....Lt., U.S.N.R.
 Paulus, J. W., Dubuque (APO 115, New York, N. Y.).....Capt., A.U.S.
 Quinn, F. P., Dubuque (New Orleans, La.).....Major, A.U.S.
 Scharle, Theodore, Dubuque (Ft. Sam Houston, Texas).....Capt., A.U.S.
 Schueller, C. J., Dubuque (APO 334, New York, N. Y.).....1st Lt., A.U.S.
 Sharpe, D. C., Dubuque (APO 562, New York, N. Y.).....Major, A.U.S.
 Smith, C. W., Dubuque (Shoemaker, Cal.).....Lt., U.S.N.R.
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.)....Lt. Col., A.U.S.
 Straub, J. J., Dubuque (Bethesda, Md.).....Lt. Comdr., U.S.N.R.
 Ward, D. F., Dubuque (Great Lakes, Ill.).....Lt. Comdr., U.S.N.R.

Emmet County

Clark, J. P., Estherville (APO New York, N. Y.)...Major, A.U.S.
 Collins, L. E., Estherville (APO 247, San Francisco, Cal.).....1st Lt., A.U.S.
 Miller, O. H., Estherville (Seattle, Wash.)....Lt. Comdr., U.S.N.R.

Fayette County

Gallagher, J. P., Oelwein (Peru, Indiana).....Lt., U.S.N.R.
 Henderson, W. B., Oelwein (APO 234, San Francisco, Cal.).....Lt. Col., A.U.S.
 Sulzbach, J. F., Oelwein
 Walsh, E. W., Hawkeye (Huntington, W. Va.).....A.U.S.
 Walsh, W. E., Hawkeye (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

Floyd County

Baltzell, W. C., Charles City (APO 2, New York, N. Y.).....Major, A.U.S.
 Flater, N. C., Floyd (APO 350, New York, N. Y.)...Capt., A.U.S.
 Huber, R. H., Charles City.....1st Lt., A.U.S.
 Knight, R. A., Rockford (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Mackie, D. G., Charles City (Danville, Ill.).....Capt., A.U.S.

Magdsick, Carl, Charles City (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Miner, J. B., Jr., Charles City (San Diego, Cal.)...Lt., U.S.N.R.
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.).....Capt., A.U.S.

Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) 1st Lt., A.U.S.
 Hedgecock, L. E., Hampton (Camp Lejeune, N. Car.).....Lt. Comdr., U.S.N.R.
 Randall, W. L., Hampton (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.

Fremont County

Kerr, W. H., Hamburg (APO 926, San Francisco, Cal.).....Capt., A.U.S.
 Powell, R. A., Farragut (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Wanamaker, A. R., Hamburg (APO 729, Seattle, Wash.).....Major, A.U.S.

Greene County

Cartwright, F. P., Grand Junction (APO 511, New York, N. Y.).....Capt., A.U.S.
 Castles, W. A., Rippey (APO 953, San Francisco, Cal.).....Major, A.U.S.

Grundy County

Cullison, R. M., Dike (Fort Howard, Md.).....Major, A.U.S.
 Rose, J. E., Grundy Center (Fleet PO, New York, N. Y.).....Lt. Comdr., U.S.N.R.

Hamilton County

Buxton, O. C., Webster City.....Capt., A.U.S.
 James, D. W., Kamrar (APO 464, New York, N. Y.).....Capt., A.U.S.
 Lewis, W. B., Webster City (APO 383, New York, N. Y.).....Major, A.U.S.
 Mooney, F. P., Jewell (APO 339, New York, N. Y.) Capt., A.U.S.
 Paschal, G. A., Williams (Camp Crowder, Mo.)....Capt., A.U.S.
 Patterson, R. A., Webster City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 Ptacek, J. L., Webster City (APO 140, New York, N. Y.).....Capt., A.U.S.
 Schrader, M. A., Webster City (Topeka, Kan.)....1st Lt., A.U.S.

Hancock-Winnebagos Counties

Dulmes, A. H., Klemme (APO 782, New York, N. Y.).....Capt., A.U.S.
 Eller, L. W., Kanawha (APO 302, New York, N. Y.).....Capt., A.U.S.
 Irish, T. J., Forest City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Shaw, D. F., Britt (APO 334, San Francisco, Cal.) Major, A.U.S.
 Thomas, C. W., Forest City (APO 519, New York, N. Y.).....Major, A.U.S.

Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.)....Lt., U.S.N.R.
 Jansonius, J. W., Eldora.....Capt., A.U.S.
 Johnson, R. J., Iowa Falls (APO 514, New York, N. Y.).....Capt., A.U.S.
 Johnson, W. A., Alden (Orlando, Fla.).....Capt., A.U.S.
 Steenrod, E. J., Iowa Falls (Oceanside, Cal.)....Lt. Comdr., U.S.N.R.
 Todd, V. S., Eldora (APO 70, San Francisco, Cal.)...Capt., A.U.S.

Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Ord, Cal.)...Capt., A.U.S.
 Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.)...Capt., A.U.S.
 Heise, C. A., Jr., Missouri Valley (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Tamisiea, F. X., Missouri Valley (APO 562, New York, N. Y.).....Capt., A.U.S.

Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.).....Major, A.U.S.
 Cogan, Samuel, Mt. Pleasant
 Dwankowski, Carl, Mt. Pleasant (APO 511, New York, N. Y.).....Major, A.U.S.
 Gloeckler, B. B., Mount Pleasant (APO 9768, New York, N. Y.).....Capt., A.U.S.
 Hartley, B. D., Mount Pleasant (Galesburg, Ill.)...Capt., A.U.S.
 Megorden, W. H., Mount Pleasant (Ogden, Utah)....Capt., A.U.S.
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.).....Major, A.U.S.

Howard County

Buresh, Abner, Lime Springs (Oceanside, Cal.).....Lt. Comdr., U.S.N.R.

Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.).....Capt., A.U.S.
 Coddington, J. H., Humboldt (APO 19733-E, San Francisco, Cal.).....Capt., A.U.S.

Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.).....Capt., A.U.S.
 Martin, J. W., Holstein (Albany, Ga.).....Capt., A.U.S.

Iowa County

Geiger, U. S., North English (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 McDaniel, J. D., Marengo (APO 1010, San Francisco, Cal.).....Capt., A.U.S.
 Miller, D. F., Williamsburg (San Diego, Cal.).....Lt., U.S.N.R.

Jackson County

Bausch, R. G., Bellevue (APO 251, New York, N. Y.).....Capt., A.U.S.
 Skelley, P. B., Jr., Maquoketa (APO 247, San Francisco, Cal.).....1st Lt., A.U.S.
 Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.).....Major, A.U.S.

Jasper County

Doake, Clarke, Newton.....1st Lt., A.U.S.
 Ritchey, S. J., Newton.....Lt. Col., A.U.S.

Jefferson County

Castell, J. W., Fairfield (Ft. Sam Houston, Texas).....Capt., A.U.S.
 Frey, Harry, Fairfield (Norfolk, Va.).....Lt. Comdr., U.S.N.R.
 Gittler, Ludwig, Fairfield.....Lt. Col., A.U.S.
 Graber, H. E., Fairfield (APO 18642, San Francisco, Cal.).....Major, A.U.S.
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

Johnson County

Albert, S. M., Iowa City (APO 9622, New York, N. Y.).....1st Lt., A.U.S.
 Anderson, E. N., Iowa City.....Major, A.U.S.
 Boyd, E. J., Iowa City.....Capt., A.U.S.
 Bunge, R. G., Iowa City (Orlando, Fla.).....Capt., A.U.S.
 Callahan, G. D., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Cobb, E. A., Iowa City (APO 14987, San Francisco, Cal.).....1st Lt., A.U.S.
 Coburn, F. E., Iowa City (Toronto, Canada).....Capt., R.C.A.
 Cooper, W. K., Iowa City (Mitchell Field, N. Y.).....Capt., A.U.S.
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.).....Capt., A.U.S.
 Diddle, A. W., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Dörner, R. A., Iowa City (APO 230, New York, N. Y.).....Capt., A.U.S.
 Elmquist, H. S., Iowa City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.
 Emmons, M. B., Iowa City (Camp Bowie, Texas).....Capt., A.U.S.
 Field, Grace E., Iowa City (APO 394, New York, N. Y.).....Major, U.S.P.H.S.
 Flax, Ellis, Iowa City (APO 758, New York, N. Y.).....1st Lt., A.U.S.
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.
 Fourt, A. S., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.
 Francis, N. L., Iowa City (Annapolis, Md.).....Lt. (jg), U.S.N.R.
 Galinsky, L. J., Oakdale (APO 433, New York, N. Y.).....Capt., A.U.S.
 Garlinghouse, R. O., Iowa City (Ft. Riley, Kan.).....Lt. Col., A.U.S.
 Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.
 Hessin, A. L., Iowa City (APO 472, New York, N. Y.).....Major, A.U.S.
 Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 January, L. E., Iowa City (Pyote, Texas).....Major, A.U.S.
 Kanealy, J. F., Iowa City (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.
 Keislar, H. D., Iowa City (Washington, D. C.).....Capt., A.U.S.
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.
 Laubsch, J. H., Iowa City (Ft. Benning, Ga.).....1st Lt., A.U.S.
 Longwell, F. H., Iowa City (Daytona, Fla.).....Major, A.U.S.
 Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.
 Naggy, S. F., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.
 Newman, R. W., Iowa City (Jacksonville, Fla.).....Lt. Comdr., U.S.N.R.
 Parkin, E. L., Iowa City (Mountain Home, Idaho).....1st Lt., A.U.S.
 Paulus, E. W., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.
 Petersen, V. W., Iowa City (APO 689, New York, N. Y.).....Col., A.U.S.
 Ringrose, E. J., Iowa City.....Capt., A.U.S.
 Sells, R. L., Jr., Iowa City (Palmdale, Cal.).....Capt., A.U.S.
 Smith, H. F., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Speidel, G. P., Oakdale (Keen, N. Car.).....Capt., A.U.S.
 †Springer, E. W., Iowa City (APO 678, New York, N. Y.).....Capt., A.U.S.
 Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.
 Stagg, W. A., Iowa City.....Major, A.U.S.
 Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.
 Stump, R. B., Iowa City (Denver, Colo.).....Capt., A.U.S.
 Titus, E. L., Iowa City (Belmont, Mass.).....Col., A.U.S.
 Trapasso, T. J., Iowa City (APO 520, New York, N. Y.).....Capt., A.U.S.
 Trussell, R. E., Iowa City (APO 75, San Francisco, Cal.).....Capt., A.U.S.
 Voelker, C. A., Jr., Iowa City.....Capt., A.U.S.
 Ward, R. H., Iowa City (Jacksonville, Fla.).....Lt. Comdr., U.S.N.R.
 Weatherly, H. E., Iowa City (APO 72, San Francisco, Cal.).....Capt., A.U.S.
 Wellmann, W. W., Iowa City (Louisville, Ky.).....1st Lt., A.U.S.
 Ziffren, S. E., Iowa City (Springfield, Mo.).....1st Lt., A.U.S.

Junior Members

†Adams, M. P., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.
 Black, N. M., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
 Blair, J. D., Iowa City (APO San Francisco, Cal.).....Major, A.U.S.
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.
 Brintnall, E. S., Iowa City (APO New York, N. Y.).....Major, A.U.S.
 Burr, S. P., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.
 Carney, R. G., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Connole, J. F., Iowa City (Camp Bowie, Texas).....1st Lt., A.U.S.
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.).....1st Lt., A.U.S.
 Coulson, F. H., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
 Decker, C. E., Iowa City (Oklahoma City, Okla.).....1st Lt., A.U.S.
 Donnelly, B. A., Iowa City (Santa Barbara, Cal.).....Major, A.U.S.
 Ehrenhaft, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
 Englerth, F. L., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.
 Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.
 Glassman, A. L., Iowa City (Palm Springs, Cal.).....1st Lt., A.U.S.
 Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.
 Harms, G. E., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Hendricks, A. B., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.
 Hovis, Wm., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.
 Jacobs, C. A., Iowa City (APO New York, N. Y.).....Major, A.U.S.
 Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.).....1st Lt., A.U.S.
 Keil, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.
 Kelberg, M. R., Iowa City (Alameda, Cal.).....Lt., U.S.N.R.
 Keleher, M. F., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.
 Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.
 Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.
 McCann, J. P., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 McQuiston, W. O., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.
 Moen, B. H., Iowa City (APO 755, New York, N. Y.).....Capt., A.U.S.
 Moon, R. E., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.
 Odell, Lester, Iowa City (Pensacola, Fla.).....Lt. (jg), U.S.N.R.
 Phillips, R. M., Iowa City (San Francisco, Cal.).....1st Lt., A.U.S.
 Pulliam, R. L., Iowa City (APO 350, New York, N. Y.).....Major, A.U.S.
 Randall, C. G., Iowa City.....Capt., A.U.S.
 Randall, R. G., Iowa City (Waterloo, Iowa).....Capt., A.U.S.
 Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.
 Russin, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.
 Saar, J. L., Iowa City (APO New York, N. Y.).....Major, A.U.S.
 Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.
 Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Shand, J. A., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Shapiro, S. I., Iowa City.....A.U.S.
 Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.
 Skewis, J. E., Iowa City (Corona, Cal.).....Lt. Comdr., U.S.N.R.
 Skouge, O. T., Iowa City.....A.U.S.
 Towle, R. A., Iowa City (Jacksonville, Fla.).....Lt. Comdr., U.S.N.R.
 Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.
 Waters, V. G., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.
 Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.
 Williams, L. A., Iowa City (Treasure Island, Cal.).....1st Lt., A.U.S.
 Willumsen, H. C., Iowa City (Denver, Colo.).....Capt., A.U.S.
 Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.
 Yetter, W. L., Iowa City (APO New York, N. Y.).....Major, A.U.S.
 Zahrt, N. E., Iowa City (Keesler Field, Miss.).....Capt., A.U.S.
 Zimmerman, H. A., Iowa City (Santa Ana, Cal.).....1st Lt., A.U.S.

Keokuk County

Engelmann, A. T., What Cheer (Camp Polk, La.).....Capt., A.U.S.
 Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.
 Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.

Kossuth County

Clapsaddle, D. W., Burt (Manhattan, Kan.).....Capt., A.U.S.
 Corbin, R. L., Luverne (Des Moines, Iowa).....Capt., A.U.S.
 Kenefick, J. N., Algona (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Williams, R. L., Lakota (Iowa City, Iowa).....Lt. Comdr., U.S.N.R.

Lee County

Ashline, G. H., Keokuk.....Capt., A.U.S.
 Cleary, H. G., Fort Madison (Ft. Benning, Ga.).....Capt., A.U.S.
 Cooper, R. E., Keokuk (APO 565, San Francisco, Cal.).....Capt., A.U.S.
 Johnstone, A. A., Keokuk (APO 942, Seattle, Wash.).....Col., A.U.S.
 McKee, T. L., Keokuk (Miami Beach, Fla.).....Major, A.U.S.
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.).....Major, A.U.S.
 Rankin, J. R., Keokuk (Memphis, Tenn.).....Lt. Comdr., U.S.N.R.
 Richmond, A. C., Fort Madison (San Bruno, Cal.).....Lt. Comdr., U.S.N.R.
 Steffy, F. L., Keokuk.....A.U.S.
 Younan, Thomas, Ft. Madison (APO 758, New York, N. Y.).....Capt., A.U.S.

Linn County

Andre, G. R., Lisbon (APO 90, New York, N. Y.)...Lt. Col., A.U.S.
 Berney, P. W., Cedar Rapids (Camp Crowder, Mo.).....Major, A.U.S.
 Block, W. M., Cedar Rapids (Memphis, Tenn.)....Capt., A.U.S.
 Chapman, R. M., Cedar Rapids (Chicago, Ill.)....Major, A.U.S.
 Coughlan, V. H., Coggon (Fort Snelling, Minn.)....A.U.S.
 Downing, J. S., Cedar Rapids (Colorado Springs, Colo.).....Lt. Col., A.U.S.
 Dunn, F. C., Cedar Rapids (La Junta, Colo.)....Major, A.U.S.
 Gearhart, Merriam, Springville (APO 513, New York, N. Y.).....Major, A.U.S.
 Gerstman, Herbert, Marion (APO 862, New York, N. Y.).....Capt., A.U.S.
 Halpin, L. J., Cedar Rapids (APO 957, San Francisco, Cal.).....Major, A.U.S.
 Hecker, J. T., Cedar Rapids (APO 408, New York, N. Y.).....Capt., A.U.S.
 Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.).....Lt. Col., A.U.S.
 Kieck, E. G., Cedar Rapids (Norman, Okla.)....Comdr., U.S.N.R.
 Kruckenberg, W. G., Mount Vernon (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.
 Leedham, C. L., Springville (Camp Campbell, Ky.)...Col., A.U.S.
 Locher, R. C., Cedar Rapids (APO 230, New York, N. Y.).....Lt. Col., A.U.S.
 †MacDougal, R. F., Cedar Rapids (APO 9057, New York, N. Y.).....Capt., A.U.S.
 McConkie, E. B., Cedar Rapids (Hines, Ill.).....Major, A.U.S.
 McQuiston, J. S., Cedar Rapids (Fort Warren, Wyo.).....Lt. Col., A.U.S.
 Meffert, C. B., Cedar Rapids (Ft. Benjamin Harrison, Ind.).....Lt. Col., A.U.S.
 Murray, E. S., Cedar Rapids (APO 512 New York, N. Y.).....Lt. Col., A.U.S.
 Netolicky, R. Y., Cedar Rapids (Hawthorne, Nev.).....Lt. Comdr., U.S.N.R.
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.).....1st Lt., A.U.S.
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.)....Major, A.U.S.
 Parke, John, Cedar Rapids.....Major, A.U.S.
 Proctor, R. D., Cedar Rapids (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 Rieniets, J. H., Cedar Rapids, (Charleston, S. Car.).....Lt. Comdr., U.S.N.R.
 Smrha, J. A., Cedar Rapids (Topeka, Kan.).....Capt., A.U.S.
 Stansbury, J. R., Cedar Rapids (Fort Lewis, Wash.).....Capt., A.U.S.
 Sulek, A. E., Cedar Rapids (APO 244, San Francisco, Cal.).....Lt. Col., A.U.S.
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.).....Major, A.U.S.
 Yavorsky, W. D., Cedar Rapids (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.

Louisa County

DeYarman, K. T., Morning Sun (San Antonio, Texas).....Capt., A.U.S.
 Tandy, R. W., Morning Sun (Oakland, Cal.).....Lt. Comdr., U.S.N.R.

Lucas County

Lister, K. E., Chariton (Fort Snelling, Minn.).....A.U.S.

Lyon County

Cook, S. H., Rock Rapids (Camp Chaffee, Ark.)....Major, A.U.S.
 Corcoran, T. E., Rock Rapids.....Capt., A.U.S.
 Moriarity, F. J., Rock Rapids (Corvallis, Ore.)....Capt., A.U.S.

Madison County

Chesnut, P. F., Winterset (APO 411, New York, N. Y.).....Capt., A.U.S.

Mahaska County

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.).....Lt. Col., A.U.S.
 Bos, H. C., Oskaloosa (APO 758, New York, N. Y.).....Major, A.U.S.
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Clark, G. H., Oskaloosa (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Gillett, R. M., Oskaloosa (Fleet PO, San Francisco, Cal.).....Capt. U.S.N.
 Greenlee, M. R., Oskaloosa (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 Hibbs, R. E., Oskaloosa.....Major, A.U.S.
 Keohen, G. F., Oskaloosa (APO 4299, San Francisco, Cal.).....Major, A.U.S.
 Lemon, K. M., Oskaloosa (APO 637, New York, N. Y.).....Capt., A.U.S.
 Reiley, R. E., Oskaloosa (APO 502, San Francisco, Cal.).....Major, A.U.S.
 Shurts, J. J., Oskaloosa (Fort Mason, Cal.).....Capt., A.U.S.
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.).....Capt., A.U.S.

Marion County

Ralston, F. P., Knoxville (Indio, Cal.).....Capt., A.U.S.
 Schiek, C. M., Knoxville.....Lt. Comdr., U.S.N.R.
 Schroeder, M. C., Pella (Camp Livingston, La.)....Capt., A.U.S.
 Williams, D. B., Knoxville.....Capt., A.U.S.

Marshall County

Carpenter, R. C., Marshalltown (APO 678 New York, N. Y.).....Capt., A.U.S.
 Marble, E. J., Marshalltown (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Marble, W. P., Marshalltown (Colorado Springs, Colo.).....Major, A.U.S.
 Noonan, J. J., Marshalltown (Fort Jackson, S. Car.).....Lt. Col., A.U.S.
 Phelps, R. E., State Center (APO 7, San Francisco, Cal.).....Capt., A.U.S.
 Wells, R. C., Marshalltown (Gowen Field, Idaho)....Capt., A.U.S.
 Wolfe, O. D., Marshalltown (APO 938, Minneapolis, Minn.).....Capt., A.U.S.
 Wolfe, R. M., Marshalltown (Coronado, Cal.).....Lt. U.S.N.R.

Mills County

DeYoung, W. A., Glenwood (APO 562, New York, N. Y.).....Capt., A.U.S.
 Kuitert, J. H., Glenwood (St. Cloud, Minn.).....Major, A.U.S.

Mitchell County

Culbertson, R. A., St. Ansgar (APO 331, San Francisco, Cal.).....Lt. Col., A.U.S.
 Moore, E. E., Osage (APO 772, New York, N. Y.)....Major, A.U.S.
 Owen, W. E., Osage (San Diego, Cal.).....Lt. U.S.N.
 Walker, T. G., Riceville (Hutchinson, Kan.)....Lt. Comdr., U.S.N.R.

Monona County

Almer, L. E., Moorhead (Fort Knox, Ky.).....Capt., A.U.S.
 Ganzhorn, H. L., Mapleton (APO 72, San Francisco, Cal.).....Capt., A.U.S.
 †Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Stauch, M. O., Whiting (Fort Lewis, Wash.)....Major, A.U.S.
 Wainwright, M. T., Mapleton (Hines, Ill.).....Capt., A.U.S.
 Wolpert, P. L., Onawa (Camp Atterbury, Ind.)....Capt., A.U.S.

Monroe County

Bay, F. N., Albia.....Lt. Comdr., U.S.N.R.
 Gilliland, C. H., Albia (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.
 Heimann, V. R., Albia (Camp Maxey, Texas).....Capt., A.U.S.
 Smith, R. A., Albia (New Cumberland, Pa.).....Capt., A.U.S.

Montgomery County

Bastron, H. C., Red Oak (APO 951, San Francisco, Cal.).....Major, A.U.S.
 Hansen, F. A., Red Oak (Hitchcock, Texas).....Lt., U.S.N.R.
 Nelson, C. C., Red Oak (Chapel Hill, N. Car.)....Lt., U.S.N.R.
 Panzer, E. J. C., Stanton (Point Montara, Cal.)....Lt., U.S.N.R.
 Rost, G. S., Red Oak (Halstead, Kan.).....Capt., A.U.S.
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.).....Capt., A.U.S.

Muscatine County

Asthalter, R. W., Muscatine (Fort Meade, Md.)...1st Lt., A.U.S.
 Carlson, E. H., Muscatine (APO 180, San Francisco, Cal.).....Major, A.U.S.
 Goad, R. R., Muscatine (Memphis, Tenn.).....Comdr., U.S.N.R.
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa)....Major, A.U.S.
 Lindley, E. L., Muscatine (APO 6, San Francisco, Cal.).....Capt., A.U.S.
 Muhs, E. O., Muscatine (APO 578, New York, N. Y.).....Major, A.U.S.
 Norem, Walter, Muscatine (APO, Miami, Fla.)....Capt., A.U.S.
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.).....Capt., A.U.S.
 Sywassink, G. A., Muscatine (APO 488-"Y" Forces, New York, N. Y.).....Lt. Col., A.U.S.
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.).....Lt. Col., A.U.S.

O'Brien County

Getty, E. B., Primghar (APO 153, New York, N. Y.).....Capt., A.U.S.
 Hayne, W. W., Paullina (APO 638, New York, N. Y.).....Capt., A.U.S.
 Moen, S. T., Hartley (Camp Crowder, Mo.).....Lt. Col., A.U.S.

Osceola County

Kuntz, G. S., Sibley (APO 34, New York, N. Y.)....Capt., A.U.S.

Page County

Barnes, C. A., Shenandoah (APO New York, N. Y.)....Capt., A.U.S.
 Bauer, Frank, Shenandoah (APO New York, N. Y.)....A.U.S.
 Blackman, Nathan, Clarinda (Ft. Benj. Harrison, Ind.).....Major, A.U.S.
 Bossingham, E. N., Clarinda (Fort Ord, Cal.)....Major, A.U.S.
 Brush, Frederick, Shenandoah (APO New York, N. Y.)....A.U.S.
 Burdick, F. D., Shenandoah (Denver, Colo.).....Capt., A.U.S.
 Burnett, F. K., Clarinda (APO 777, New York, N. Y.).....Major, A.U.S.
 Rausch, G. R., Clarinda (Sioux City, Iowa).....Capt., A.U.S.
 Savage, L. W., Shenandoah (Fort Meade, Md.)....1st Lt., A.U.S.
 Schwidde, Tilford, Shenandoah (APO New York, N. Y.)....A.U.S.

Palo Alto County

Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.

Plymouth County

Bowers, C. V., LeMars (APO New York, N. Y.)...1st Lt., A.U.S.
 Fisch, R. J., LeMars (Denver, Colo.)...Capt., A.U.S.
 Fissch, R. H., Remsen (Homestead, Fla.)...Capt., A.U.S.
 Wolfson, Harold, Kingsley (APO San Francisco, Cal.)...Lt. Col., A.U.S.

Pocahontas County

Blair, F. L., Jr., Fonda...Lt., U.S.N.R.
 Herrick, T. G., Gilmore City (APO 218, New York, N. Y.)...Capt., A.U.S.
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.)...Capt., A.U.S.
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.)...Capt., A.U.S.
 Patterson, A. W., Fonda (Des Moines, Iowa)...Capt., A.U.S.

Polk County

Abbott, W. D., Des Moines (Great Lakes, Ill.)...Comdr., U.S.N.R.
 Angell, C. A., Des Moines (APO 403, New York, N. Y.)...Capt., A.U.S.
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.)...Lt. Col., A.U.S.
 Barner, J. L., Des Moines (Atlanta, Ga.)...Major, A.U.S.
 Barnes, B. C., Des Moines...Major, A.U.S.
 Bates, M. T., Des Moines (Inyokern, Cal.)...Lt. Comdr., U.S.N.R.
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 Bond, T. A., Des Moines (Oakland, Cal.)...Lt. Comdr., U.S.N.R.
 Bone, H. C., Des Moines (Arlington, Cal.)...Major, A.U.S.
 Brown, A. W., Des Moines...Capt., A.U.S.
 Bruner, J. M., Des Moines (El Paso, Texas)...Major, A.U.S.
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada)...Sqd. Leader, R.C.A.F.
 Chambers, J. W., Des Moines (APO 667, New York, N. Y.)...Capt., A.U.S.
 Chase, W. B., Jr., Des Moines (Bremerton, Wash.)...Lt. Comdr., U.S.N.R.
 Clark, G. E., Jr., Des Moines...Capt., A.U.S.
 Connell, J. R., Des Moines...Major, A.U.S.
 Corn, H. H., Des Moines (APO 9281, San Francisco, Cal.)...Capt., A.U.S.
 Coughlan, D. W., Des Moines (APO 689, New York, N. Y.)...Major, A.U.S.
 Crowley, D. F., Jr., Des Moines (Manchester, N. H.)...Major, A.U.S.
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.)...Capt., A.U.S.
 DeCicco, Ralph, Des Moines (APO 952, San Francisco, Cal.)...Capt., A.U.S.
 Decker, H. G., Des Moines (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Downing, A. H., Des Moines (Clinton, Iowa)...Capt., A.U.S.
 Elliott, O. A., Des Moines (La Junta, Colo.)...Capt., A.U.S.
 Ellis, H. G., Des Moines (APO 710, San Francisco, Cal.)...Capt., A.U.S.
 Ervin, L. J., Des Moines (Victoria, Texas)...Lt. Col., A.U.S.
 Fleck, W. L., Des Moines (Ft. Howard, Md.)...Lt. Col., A.U.S.
 Fried, David, Des Moines (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 Fracasse, John, Des Moines...1st Lt., A.U.S.
 Gerchek, E. W., Des Moines...1st Lt., A.U.S.
 Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.)...Lt. Col., A.U.S.
 Glomset, D. A., Des Moines...Capt., A.U.S.
 Goldberg, Louie, Des Moines (APO 926, San Francisco, Cal.)...Capt., A.U.S.
 Gordon, A. M., Des Moines (APO 367, New York, N. Y.)...Capt., A.U.S.
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Greek, L. M., Des Moines (APO 758, New York, N. Y.)...Capt., A.U.S.
 Gura, H. H., Des Moines (Austin, Texas)...Capt., A.U.S.
 Haines, D. J., Des Moines (APO 75, San Francisco, Cal.)...Capt., A.U.S.
 Harris, D. D., Des Moines (Gulfport, Miss.)...Lt. Comdr., U.S.N.R.
 Harris, H. L., Des Moines (Salina, Kan.)...1st Lt., A.U.S.
 Hess, John, Jr., Des Moines...1st Lt., A.U.S.
 Johnston, C. H., Des Moines (Spokane, Wash.)...Lt. Col., A.U.S.
 Kast, D. H., Des Moines (Fort Stevens, Ore.)...Capt., A.U.S.
 Kelley, E. J., Des Moines (Columbus, Ohio)...Comdr., U.S.N.R.
 Kirch, W. A. W., Des Moines (Astoria, Ore.)...Lt. Comdr., U.S.N.R.
 Klockslem, H. L., Des Moines (APO New York, N. Y.)...Capt., A.U.S.
 Landis, S. N., Des Moines (West Palm Beach, Fla.)...1st Lt., A.U.S.
 La Tona, Salvatore, Des Moines...1st Lt., A.U.S.
 Lederman, James, Des Moines...1st Lt., R.C.A.
 Lehman, E. W., Des Moines (APO 565, San Francisco, Cal.)...Major, A.U.S.
 Losh, C. W., Jr., Des Moines...Capt., A.U.S.
 Lovejoy, E. P., Des Moines...Comdr., U.S.N.R.
 Maloney, P. J., Des Moines (Fort Lewis, Wash.)...1st Lt., A.U.S.
 Marouis, G. S., Des Moines (Brooklyn, N. Y.)...Lt. Comdr., U.S.N.R.
 Martin, L. E., Des Moines (Helena, Ark.)...1st Lt., A.U.S.
 Matheson, J. H., Des Moines (San Leandro, Cal.)...Lt. Comdr., U.S.N.R.

Mauritz, E. L., Des Moines (APO 763, New York, N. Y.)...Capt., A.U.S.
 McCoy, H. J., Des Moines (Iowa City, Iowa)...Comdr., U.S.N.R.
 McDonald, D. J., Des Moines...Major, A.U.S.
 McNamee, J. H., Des Moines (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Mencher, E. W., Des Moines...1st Lt., A.U.S.
 Merkel, B. M., Des Moines (Denver, Colo.)...Major, A.U.S.
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.)...Capt., A.U.S.
 Morden, R. P., Des Moines (APO 635, New York, N. Y.)...Capt., A.U.S.
 Mumma, C. S., Des Moines (Los Angeles, Cal.)...Major, A.U.S.
 Murphy, J. H., Des Moines (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Nelson, A. L., Des Moines (Camp Livingston, La.)...Major, A.U.S.
 Noun, L. J., Des Moines (Newport, R. I.)...Lt., U.S.N.R.
 Noun, M. H., Des Moines...Major, A.U.S.
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.)...Lt., U.S.N.
 Overton, L. M., Des Moines (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Patton, B. W., Des Moines (Camp Robinson, Ark.)...1st Lt., A.U.S.
 Peisen, C. J., Des Moines (APO 165, New York, N. Y.)...Major, A.U.S.
 Penn, E. C., West Des Moines (APO 650, New York, N. Y.)...Capt., A.U.S.
 Pfeiffer, E. P., Des Moines...Major, A.U.S.
 Phillips, A. B., Des Moines (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.
 Porter, R. J., Des Moines...Capt., A.U.S.
 Powell, L. D., Des Moines (Fleet PO, San Francisco, Cal.)...Capt., U.S.N.R.
 Priestley, J. B., Des Moines (Swannanoa, N. C.)...Lt. Col., A.U.S.
 Purdy, W. O., Des Moines...Major, A.U.S.
 Robinson, V. C., Des Moines...Major, A.U.S.
 Rotkow, M. J., Des Moines (Camp Atterbury, Ind.)...Capt., A.U.S.
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.)...1st Lt., A.U.S.
 Schlaser, V. L., Des Moines (Hutchinson, Kan.)...Lt., U.S.N.
 Shepherd, L. K., Des Moines (APO New York, N. Y.)...Major, A.U.S.
 Shiffer, H. K., Des Moines...1st Lt., A.U.S.
 Singer, P. L., Des Moines (Camp Grant, Ill.)...1st Lt., A.U.S.
 Skultety, J. A., Des Moines (Fleet PO, San Francisco, Cal.)...P. A. Surg., U.S.P.H.S.
 Smith, H. J., Des Moines (Chicago, Ill.)...Lt. Comdr., U.S.N.R.
 Smith, R. T., Des Moines (APO 719, San Francisco, Cal.)...Capt., A.U.S.
 *Snodgrass, R. W., Des Moines (APO 9528, New York, N. Y.)...Capt., A.U.S.
 Snyder, G. E., Grimes (Galesburg, Ill.)...Major, A.U.S.
 Sohm, H. A., Des Moines...Comdr., U.S.N.R.
 Sorensen, R. M., Des Moines (Topeka, Kan.)...Major, U.S.P.H.S.
 Springer, F. A., Des Moines (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Stearns, A. B., Des Moines (Denver, Colo.)...Major, A.U.S.
 Stickler, Robert, Des Moines...Major, A.U.S.
 Stitt, P. L., Des Moines (Seattle, Wash.)...Lt. (jg), U.S.N.R.
 Throckmorton, J. F., Des Moines (APO 339, New York, N. Y.)...Major, A.U.S.
 Toubes, A. A., Des Moines (APO 635, New York, N. Y.)...Capt., A.U.S.
 Turner, H. V., Des Moines (San Antonio, Texas)...Capt., A.U.S.
 Updegraff, Thomas, Des Moines (APO San Francisco, Cal.)...Capt., A.U.S.
 Van Hal, L. A., Des Moines (Des Moines, Iowa)...Major, A.U.S.
 Wagner, E. C., Des Moines (APO 1009, San Francisco, Cal.)...Capt., A.U.S.
 Willett, W. M., Des Moines...Capt., A.U.S.
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Zarchy, A. C., Des Moines (Camp Cooke, Cal.)...Capt., A.U.S.

Pottawattamie County

Collins, R. M., Council Bluffs (Camp Wallace, Texas)...Lt. Comdr., U.S.N.R.
 Dean, A. M., Council Bluffs (Fleet PO, San Francisco, Cal.)...Comdr., U.S.N.R.
 Edwards, C. V., Council Bluffs (Pensacola, Fla.)...Lt. Comdr., U.S.N.R.
 Floersch, E. B., Council Bluffs (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.
 Hennessy, J. D., Council Bluffs (Clinton, Okla.)...Lt. Comdr., U.S.N.R.
 Jensen, A. L., Council Bluffs (Ft. Lewis, Wash.)...Lt. Col., A.U.S.
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.)...Lt., U.S.N.R.
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.)...Major, A.U.S.
 Limbert, E. M., Council Bluffs...Major, A.U.S.
 Martin, L. R., Council Bluffs (Auburn, Cal.)...Capt., A.U.S.
 Mathiasen, H. W., Neola (Alexandria, La.)...Capt., A.U.S.
 Mathiasen, J. W., Council Bluffs (Patterson Field, Ohio)...Capt., A.U.S.
 Moskovitz, J. M., Council Bluffs (APO 887, New York, N. Y.)...Capt., A.U.S.
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.)...Major, A.U.S.
 Sternhill, Isaac, Council Bluffs (Camp Crowder, Mo.)...Capt., A.U.S.

Tinley, R. E., Council Bluffs.....Major, A.U.S.
 Treynor, J. V., Council Bluffs (Chicago, Ill.).....Comdr., U.S.N.R.
 West, A. G., Council Bluffs (APO 230, New York,
 N. Y.).....Capt., A.U.S.
 Wieseler, R. J., Avoca (McChord Field, Wash.).....A.U.S.
 Wurll, O. A., Council Bluffs (APO 887, New York,
 N. Y.).....Lt. Col., A.U.S.

Poweshiek County

Brobyn, T. E., Grinnell (APO 18593, New York,
 N. Y.).....Major, A.U.S.
 Hickerson, L. C., Brooklyn (APO 559, New York,
 N. Y.).....Capt., A.U.S.
 Korfmacher, E. S., Grinnell (APO 923, San Francisco,
 Cal.).....Capt., A.U.S.
 Parish, J. R., Grinnell (Oakland, Cal.).....Lt. Comdr., U.S.N.R.
 Somers, P. E., Grinnell (Denver, Colo.).....1st Lt., A.U.S.

Ringgold County

Seaman, C. L., Mount Ayr (Fort Smith, Ark.).....Major, A.U.S.

Sac County

Bassett, G. H., Sac City (Mobile, Ala.).....Lt. Comdr., U.S.N.R.
 Deters, D. C., Schaller.....Capt., A.U.S.
 Evans, W. I., Sac City (APO 9212, New York,
 N. Y.).....Capt., A.U.S.
 Klocksiem, R. G., Odebolt (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 Neu, H. N., Sac City.....Lt. Col., A.U.S.

Scott County

†Baker, R. W., Davenport (APO 511, New York,
 N. Y.).....Capt., A.U.S.
 Balzer, W. J., Davenport.....Capt., A.U.S.
 Bishop, J. F., Davenport (Camp Wheeler, Ga.).....Major, A.U.S.
 Block, L. A., Davenport (Cambridge, Ohio).....Major, A.U.S.
 Boden, W. C., Davenport (APO 3760, New York,
 N. Y.).....Capt., A.U.S.
 Boyer, U. S., Davenport (Rock Island, Ill.).....Lt. Col., A.U.S.
 Brown, M. J., Davenport (APO 562, New York,
 N. Y.).....Lt. Col., A.U.S.
 Carey, E. T., Davenport (APO 928, San Francisco,
 Cal.).....1st Lt., A.U.S.
 Christiansen, C. C., Dixon (APO 961, San Fran-
 cisco, Cal.).....Capt., A.U.S.
 Coleman, Tom, Davenport (APO 230, New York,
 N. Y.).....Capt., A.U.S.
 Cummins, G. M., Jr., Davenport (Fort Custer,
 Mich.).....Capt., A.U.S.
 Decker, C. E., Davenport (APO 321, San Francisco,
 Cal.).....Major, A.U.S.
 Evans, H. J., Davenport (Daytona Beach, Fla.).....Capt., A.U.S.
 Gibson, P. E., Davenport (Palm Springs, Cal.).....Major, A.U.S.
 Gonne, Wm., Jr., Davenport (APO 91, New York,
 N. Y.).....Capt., A.U.S.
 Hurewitz, H. M., Davenport.....Major, A.U.S.
 Hurteau, Everett, Davenport (APO 647, New York,
 N. Y.).....Capt., A.U.S.
 Hurteau, W. W., Davenport (Camp Berkeley,
 Texas).....Major, A.U.S.
 Kimberly, L. W., Davenport (Oak Ridge, Tenn.).....Capt., A.U.S.
 Krakauer, Max, Davenport (APO 758, New York,
 N. Y.).....Capt., A.U.S.
 Kuhl, A. B., Jr., Davenport (Ft. Meade, Md.).....1st Lt., A.U.S.
 LaDage, L. H., Davenport.....Major, A.U.S.
 Neufeld, R. J., Davenport (APO 565, Unit I, San Francisco,
 Cal.).....Capt., A.U.S.
 Perkins, R. M., Davenport (APO 121B, New York,
 N. Y.).....Capt., A.U.S.
 Rendleman, Hugh, Davenport (Fleet PO, San
 Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Sheeler, I. H., Davenport (APO 350, New York,
 N. Y.).....Capt., A.U.S.
 Shorey, J. R., Davenport (APO 204, New York,
 N. Y.).....Capt., A.U.S.
 Sorenson, A. C., Davenport (Oakland, Cal.).....Comdr., U.S.N.R.
 Sunderbruch, J. H., Davenport (APO 70, San Fran-
 cisco, Cal.).....Capt., A.U.S.
 Weinberg, H. B., Davenport (APO 72, San Francisco,
 Cal.).....Major, A.U.S.
 Zukerman, C. M., Bettendorf.....Capt., A.U.S.

Shelby County

Bisgard, C. V., Harlan (Fleet PO, San Francisco,
 Cal.).....Comdr., U.S.N.R.
 Griffith, W. O., Shelby (APO 9490, New York,
 N. Y.).....Capt., A.U.S.
 McGowan, J. P., Harlan (La Jolla, Cal.).....Lt. Comdr., U.S.N.R.

Sioux County

Gleysteen, R. R., Alton (Oceanside, Cal.).....Comdr., U.S.N.
 Larson, M. O., Hawarden.....Lt. Col., A.U.S.
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.).....1st Lt., A.U.S.

Story County

Conner, J. D., Nevada (APO 73, San Francisco,
 Cal.).....Capt., A.U.S.
 Fellows, J. G., Ames (APO 451, New York, N. Y.).....Major, A.U.S.

Lekwa, A. H., Story City (Treasure Island,
 Cal.).....Lt. Comdr., U.S.N.R.
 McFarland, G. E., Jr., Ames (Fleet PO, San Francisco,
 Cal.).....Lt., U.S.N.R.
 McFarland, J. E., Ames (Fleet PO, San Francisco,
 Cal.).....Comdr., U.S.N.R.
 Rosebrook, L. E., Ames (APO 433, New York
 N. Y.).....Major, A.U.S.
 Sperow, W. B., Nevada, (Fleet PO, San Francisco,
 Cal.).....Comdr., U.S.N.R.

Tama County

Bezman, H. S., Traer (APO 902, San Francisco,
 Cal.).....Capt., A.U.S.
 Boller, G. C., Traer (Ft. Oglethorpe, Ga.).....Capt., A.U.S.
 Dobias, S. G., Chelsea (APO 86, San Francisco,
 Cal.).....Major, A.U.S.
 Havlik, A. J., Tama (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Standefer, J. M., Tama (Des Moines, Iowa).....Lt., U.S.N.R.

Union County

Beatty, H. G., Creston (New Orleans, La.).....1st Lt., A.U.S.
 Paragas, M. R., Creston (APO 442, San Francisco,
 Cal.).....Capt., A.U.S.

Wapello County

Brentan, Emanuel, Ottumwa (Camp Carson, Colo.).....Capt., A.U.S.
 Gilfillan, C. D. N., Eldon (Battle Creek, Mich.).....Capt., A.U.S.
 Howell, H. P., Ottumwa (Hamilton Field, Cal.).....Major, A.U.S.
 Hughes, R. O., Ottumwa (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Moore, G. C., Ottumwa (APO 314, New York,
 N. Y.).....Capt., A.U.S.
 Prewitt, L. H., Ottumwa (San Antonio, Texas).....Major, A.U.S.
 Selman, R. J., Ottumwa (El Paso, Texas).....Col., A.U.S.
 Struble, G. C., Ottumwa (Cleveland, Ohio).....Lt. Col., A.U.S.
 Whitehouse, W. N., Ottumwa (Fleet PO, San Fran-
 cisco, Cal.).....Lt. Comdr., U.S.N.R.

Warren County

Fullgrabe, E. A., Indianola (Fleet PO, New York,
 N. Y.).....Lt., U.S.N.R.
 Hoffman, G. R., Lacona (Camp San Louis Obispo,
 Cal.).....Capt., A.U.S.
 Shaw, E. E., Indianola (APO 832, New Orleans,
 La.).....Capt., A.U.S.

Washington County

Boice, C. L., Washington (Arlington, Wash.).....Lt., U.S.N.
 Droz, A. K., Washington (Fleet PO, San Francisco,
 Cal.).....Comdr., U.S.N.R.
 Mast, T. M., Washington (Great Lakes, Illinois)
Lt. Comdr., U.S.N.R.
 Miller, J. R., Wellman (APO New York, N. Y.).....1st Lt., A.U.S.
 Stutsman, R. E., Washington (Patuxent River,
 Md.).....Lt., U.S.N.R.

Wayne County

Hyatt, C. N., Jr., Humeston.....Capt., A.U.S.

Webster County

Baker, C. J., Fort Dodge (APO New York, N. Y.).....Major, A.U.S.
 Burch, E. S., Dayton (Camp Crowder, Mo.).....Capt., A.U.S.
 Burleson, M. W., Fort Dodge (Pasadena, Cal.).....Capt., A.U.S.
 Coughlan, C. H., Fort Dodge (Camp Carson, Colo.).....Major, A.U.S.
 Dawson, E. B., Fort Dodge (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Glesne, O. N., Ft. Dodge (New River, N. C.).....Lt. Comdr., U.S.N.R.
 Joyner, N. M., Fort Dodge (Fargo, N. Dak.).....A.U.S.
 Kluever, H. C., Fort Dodge (St. Louis, Mo.).....Lt. Comdr., U.S.N.R.
 Larsen, H. T., Fort Dodge (Pensacola, Fla.).....Lt., U.S.N.R.
 Pederson, Thomas, Fort Dodge.....Capt., A.U.S.
 Shrader, J. C., Fort Dodge (Camp Carson, Colo.).....Lt. Col., A.U.S.
 †Thatcher, O. D., Fort Dodge (APO 634, New York,
 N. Y.).....Capt., A.U.S.
 Van Patten, E. M., Ft. Dodge (Colorado Springs,
 Colo.).....Capt., A.U.S.

Winneshek County

Fritchett, A. F., Decorah (Fleet PO, San Fran-
 cisco, Cal.).....Comdr., U.S.N.R.
 Hospodarsky, L. J., Ridgeway (APO 638, New York,
 N. Y.).....Lt. Col., A.U.S.
 Larson, L. E., Decorah (Fleet PO, San Francisco,
 Cal.).....Lt. Comdr., U.S.N.R.
 Svendsen, R. N., Decorah (San Diego, Cal.).....Lt. (jg), U.S.N.R.

Woodbury County

Bettler, P. L., Sioux City (APO 235, San Francisco,
 Cal.).....Lt. Col., A.U.S.
 Blackstone, M. A., Sioux City (San Francisco,
 Cal.).....Capt., A.U.S.
 Boe, Henry, Sioux City (Fort Snelling, Minn.).....Capt., A.U.S.
 Burroughs, H. H., Sioux City (Portsmouth, Va.).....Lt., U.S.N.R.
 Cmeyla, P. M., Sioux City.....Capt., A.U.S.

Cowan, J. A., Sioux City (Oklahoma City, Okla.)	Major, U.S.P.H.S.
Crowder, R. E., Sioux City (Kansas City, Mo.)	Lt. Comdr., U.S.N.R.
Dimsdale, L. J., Sioux City (Clinton, Iowa)	Capt., A.U.S.
Down, H. I., Sioux City (APO 758, New York, N. Y.)	Lt. Col., A.U.S.
Frank, L. J., Sioux City (Fleet PO, San Francisco, Cal.)	Comdr., U.S.N.R.
Graham, J. W., Sioux City (Pensacola, Fla.)	Lt. Comdr., U.S.N.R.
Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.)	Capt., A.U.S.
Harris, D. M., Sioux City (APO 403, New York, N. Y.)	Capt., A.U.S.
Heffernan, C. E., Sioux City (APO 336, San Francisco, Cal.)	Capt., A.U.S.
Hicks, W. K., Sioux City (Spokane, Wash.)	Major, A.U.S.
Honke, E. M., Sioux City (Palm Springs, Cal.)	Major, A.U.S.
Knott, P. D., Sioux City (Camp Crowder, Mo.)	Capt., A.U.S.
Knott, R. C., Sioux City (APO 403, New York, N. Y.)	Major, A.U.S.
Kristgen, W. M., Sioux City (Springfield, Mo.)	Lt. Col., A.U.S.
Lande, J. N., Sioux City (APO 63, New York, N. Y.)	Major, A.U.S.
Martin, R. F., Sioux City (APO 403, New York, N. Y.)	Capt., A.U.S.
Mattice, L. H., Danbury (APO 928, San Francisco, Cal.)	Capt., A.U.S.
McCuiston, H. M., Sioux City (APO 209, New York, N. Y.)	Major, A.U.S.
Rarick, I. H., Sioux City (Fresno, Cal.)	Capt., A.U.S.
Reeder, J. E., Jr., Sioux City (APO 209, New York, N. Y.)	Major, A.U.S.
Ryan, M. J., Sioux City (Topeka, Kan.)	Major, A.U.S.
Schwartz, J. W., Sioux City (APO 816, New York, N. Y.)	Lt. Col., A.U.S.
Simonsen, Marie N., Sioux City (Philadelphia, Pa.)	Lt., U.S.N.R.
Tracy, J. S., Sioux City (Camp Polk, La.)	Major, A.U.S.

Worth County

Westly, G. S., Manly (APO 927, San Francisco, Cal.)	Major, A.U.S.
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Wright County

Aagesen, C. A., Dows (APO 383, New York, N. Y.)	Capt., A.U.S.
Bird, R. G., Clarion (Asbury Park, N. J.)	Lt. Comdr., U.S.N.R.
Doles, E. A., Clarion (Spokane, Wash.)	Capt., A.U.S.
Gorrell, R. L., Clarion (Denver, Colo.)	P.A. Surg., U.S.P.H.S.
Leinbach, S. P., Belmont (Fleet PO, San Francisco, Cal.)	Lt., U.S.N.R.
Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.)	Capt., A.U.S.

- (*) Reported missing in action.
 (†) Reported deceased in service.
 (‡) Reported prisoner of war.

INTERNATIONAL COLLEGE OF SURGEONS WILL HOLD ANNUAL CONVENTION DECEMBER 7 AND 8

The International College of Surgeons will hold its Tenth Annual Convention and Convocation December 7 and 8, 1945, at the Mayflower Hotel, Washington, D. C. At this time approximately two hundred men will receive their Fellowship. A scientific program is arranged for both days. Convocation exercises will be held Friday evening, December 7, in the Mayflower Auditorium.

ANNUAL CLINICAL CONFERENCE OF CHICAGO MEDICAL SOCIETY NEXT MARCH

The Chicago Medical Society will hold its Annual Clinical Conference at the Palmer House, Chicago, Illinois, March 5, 6, 7 and 8, 1946. All physicians are invited to attend this Conference and hear the outstanding specialists from all sections of the country discuss subjects of major interest.

Veterans Administration Program in Iowa

The September issue of the JOURNAL of the Iowa State Medical Society carried an explanation of the proposed plan of the Veterans Administration to provide hospital and medical care for service-connected disabilities to veterans in their own home community. The Washington office of the Veterans Administration has taken exception to one statement made in that article, and since it may be misleading, the JOURNAL takes this opportunity to explain it.

On page 370, reference is made to non-service-connected disabilities and it is stated that they are the responsibility of the veteran himself and that the doctor and hospital should look to him for payment. The correct statement is that outpatient care of non-service-connected disabilities is the veteran's responsibility. Potentially, every veteran who becomes ill, regardless of service-connection, is entitled to treatment in Veterans Administration hospitals. However, if he cannot be admitted because of lack of space, and if he has to have care at home for the condition, then that is his responsibility and the Veterans Administration will not pay for it.

EXAMINATIONS FOR THE AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The next written examination and review of case histories (Part I) for candidates will be held in various cities of the United States and Canada and by special arrangements at Army and Navy stations on Saturday, February 2, 1946, at 2:00 p.m. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination held later in the year. All applications for this year's examinations must be in the office of the Secretary by November 1, 1945.

Arrangements will be made so far as is possible for candidates in military service to take the Part I examination (written paper and submission of case records) at their places of duty, the written examination to be proctored by the commanding officer (medical) or by a medical officer designated by him. Material for the written examination will be sent to the proctor several weeks in advance of the examination date. Candidates in military service who wish to do so may send their case records in advance of the examination date to the office of the Secretary. All other candidates should present their case records to the examiner at the time and place of taking the written examination.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh 6, Pennsylvania.

WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

President—MRS. SOREN S. WESTLY, Manly

President-Elect—MRS. ARTHUR E. MERKEL, Des Moines

Secretary—MRS. KEITH M. CHAPLER, Dexter

Treasurer—MRS. HARRY W. DAHL, Des Moines

PROGRAM SUGGESTIONS

From Mrs. William J. Butler, Chairman of the Program Committee of the Woman's Auxiliary to the American Medical Association, have come suggestions for interesting and timely Auxiliary programs. In these days full of the problems of the postwar period, we are challenged to increase our understanding and influence in important areas. We need to think and work together.

The suggestions which follow assume that doctors' wives will be interested in programs which deal directly with the aims of the medical profession and the advancement of health education. Among them, we shall find inspiration for many stimulating programs.

Mrs. Fred Moore, State Program Chairman

WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION PROGRAM

MRS. WILLIAM J. BUTLER, *Chairman*

The doctors' wives in your Auxiliary will be interested in programs which deal directly with the aims of the medical profession and the advancement of health education, such as the following:

Hygeia

We have promoted the distribution of *Hygeia* over a period of fourteen years. It has always been a major part of our program and still is. Again this coming year, reviews of current articles appearing in *Hygeia* should be included on the monthly program of each county auxiliary. We should all become familiar with this magazine which is offered to the public as the one authentic source of health information sponsored by and having behind it the authority of the American Medical Association.

Medical Economics

There are many vital problems facing the medical profession today and will be in the postwar period; programs certainly should be devoted to their study. The following are suggested for inclusion:

1. **Proposed medical legislation**, both state and federal, should always receive attention, discussion and action. This is very important at this time and may be even more so after the war.

2. **Medical education** has been greatly affected by the war and, as outlined in an editorial in the *Journal of the American Medical Association* of July 8, 1944, there has developed a situation which threatens

the existence of some medical schools. Changes by the Army and Navy in their educational plans seem certain to cut down the number of medical students to the point where the future supply of physicians will be entirely inadequate. *Incidentally, state and local program chairmen should watch the editorial page of the Journal of the American Medical Association for program material of current interest.*

3. **Postgraduate education** of the doctors returning to civil life from military service could become an urgent problem in the none too distant future. The recent superlative performances of our military forces and those of our allies, although no cause for relaxing nor for untimely optimism, would seem to indicate that postwar planning should be undertaken now. The results of the questionnaire to the physicians in the armed forces show that a large percentage desire some postgraduate training before resuming civilian practice. This is a matter of vital interest to the doctors' wives, and the American Medical Association has been actively seeking opportunities for all of the physicians who wish these educational advantages.

4. **Medical and Hospital Service** plans have had increasing popularity and an amazing growth in the past few years. Therefore, they are important to the doctor and his wife and deserve study and discussion. The medical service plans comprise those sponsored by state medical societies and those sponsored by private insurance companies. Some time ago one was proposed on the county level by Mayor LaGuardia of New York City.

5. **The rehabilitation program** for veterans of this war will be an enormous problem. Ever since World War I, the Veterans Administration has supplied medical and surgical care to a considerable fraction of our total population. Because the Army and Navy are much larger in the present war, the problem will be of proportionately greater importance.

Juvenile Delinquency

To understand the problem of juvenile delinquency, it is suggested that you arrange to hold the following meetings in your community:

I. OBTAIN THE FACTS REGARDING DELINQUENCY BY HAVING:

- A. Talks by local Juvenile Court Judge.
- B. Talks by community leaders dealing with delinquency problems.

II. WHAT ARE THE CAUSES OF JUVENILE DELINQUENCY IN YOUR COMMUNITY?

- A. Talks by local social welfare workers.
- B. Talks by community leaders, chambers of commerce, etc.

III. WHAT CAN BE DONE TO REMEDY THE CAUSES OF JUVENILE DELINQUENCY? EDUCATION OF PARENTS

- A. Talks arranged for parents by local librarian on the use of books. Plan exhibition of books.
- B. Talks by heads of musical groups, music department in schools, etc., on the use of music.
- C. Demonstration on the use of handicraft by local art galleries, teachers or recreation workers.
- D. Talks by recreation leaders or athletic teachers demonstrating the use of parties, games, etc.
- E. Sponsoring teen-age recreational centers.
- F. Enforcement of curfew.
- G. Sponsor juvenile health examinations.
- H. Set up diagnostic and preventive clinics staffed by specialists.

IV. WHAT THE COMMUNITY CAN DO TO HELP ELIMINATE THE CAUSES OF DELINQUENCY.

- A. Talks by local clergymen.
- B. Talks by superintendents or principals of schools.
- C. Talks by representatives of the Chamber of Commerce, local community centers, YWCA, YMCA, etc.
- D. Talks by local doctors on the prevention of venereal diseases.
- E. Sponsor parent guidance clinics.
- F. Sponsor children's guidance clinics.
- G. Establish clubs for under-privileged girls. (With emphasis and training on good grooming, posture, poise, etc.)
- H. Improve housing conditions.
- I. Make efforts to secure efficient law enforcement to stamp out places that breed delinquent behavior.
- J. Use influence to secure an intelligent police force sympathetic to the problem.

Advancement in Medical Science

Programs devoted to new scientific discoveries bearing on the practice of medicine should be of interest to the Auxiliary members. The sensational therapeutic advances incident to the discovery and use of the sulfa drugs have been followed by the extensive production and utilization of penicillin, which has even more therapeutic possibilities. A program on the discovery and uses of penicillin is suggested.

Tropical diseases have been encountered and acquired by large numbers of men in our armed forces. Large numbers of our physicians have become familiar with the recognition and treatment of these

diseases. With the return of our soldiers and sailors these diseases may become of some importance to our civil population and possibly a source of concern to them. Therefore, accurate information concerning them is important and a program on tropical diseases might be well worthwhile.

Articles on the foregoing subjects can be found in the *Journal of the American Medical Association*.

General Suggestions

Program chairmen may obtain material by writing to Dr. W. W. Bauer, 535 N. Dearborn Street, Chicago, Illinois, who can furnish transcribed radio programs and posters on health films and health topics. It is also suggested that speakers can be obtained through your county and state medical societies, and that you should write to your state and national legislative representatives for legislative material concerning the profession and public health.

Remember at all times to consult your local and state advisory councils when planning your programs.

PROGRAMS OF COMMITTEE CHAIRMEN 1945-1946

HYGEIA

MRS. ARTHUR I. EDISON

Chairman, Hygeia Committee

To any group interested in the health of the community, *Hygeia* can be of inestimable value. Many organizations which have previously ignored health issues are now showing decided interest, but unfortunately too many are approaching the health problem from a purely political aspect. A careful study of recent medical legislative measures presented in some state legislatures indicates the general trend of public opinion.

The Woman's Auxiliary can serve the community best by making available to the group leaders at least the type of material that will keep them properly

(Continued on page 455)

Take it from me—

It isn't hard work that ages a man's face beyond his years. Your hands may be gnarled and calloused from hard physical labor, but if you are happy in your work and untroubled by worry or fear, your face will reflect the youth of your spirit, not the callouses on your hands. For it's worry, boredom, despair and fear that chisel the lines in a man's face. And the parent of most of these ills of the mind is the bogeyman "worry."

We don't worry so much about the difficult problems we have unless we put off solving them; the thing that makes us worry the most is the feeling that we have not done all we should about meeting a situation. Most real heart-eating, face-etching worry comes from self-reproach. If we try to avoid an issue, put off meeting a trouble until some tomorrow, or do not give our best to the job at hand, we will find old man worry sitting down to supper with us and roosting on the bedpost to heckle our sleep. But if during each day we look squarely at every problem that comes up and do the best we can to meet it, if we put our very best into our job, we will have licked worry at the very start. And not only our faces will reflect our inner satisfaction with ourselves, but our whole physical and mental reactions will be rejuvenated.

—GENORE BERNHARD,
"The Right Hand," Aug. '45.

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. WALTER L. BIERRING, Des Moines. Chairman

DR. HENRY G. LANGWORTHY, Dubuque, *Secretary* DR. CHARLES L. JONES, Gilmore City

DR. CLYDE A. HENRY, Farson

DR. LESTER C. KERN, Waverly

Medical History of Wapello County

CLYDE A. HENRY, M.D., Farson

Part IV

A COMPENDIUM OF WAPELLO COUNTY MEDICAL HISTORY FROM 1853 TO 1945

(Continued from last month)

Dr. Laris P. Torrence was born at Palmyra, Missouri, November 22, 1848, and died in St. Joseph's Hospital in Ottumwa January 8, 1920. He was the son of Dr. John and Sarah (Sprott) Torrence, natives respectively of Pennsylvania and Virginia. Dr. John Torrence was for many years consulting physician in St. Peter's Hospital at Quincy, Illinois.

Young Torrence received his early education in the public schools at Palmyra, and at Christian University at Columbia, Missouri. After reading medicine in his father's office, he spent two years in the Eclectic Medical Institute at Cincinnati, Ohio, from which he was graduated in 1870. He practiced one year in Rockport, Illinois, then moved to Quincy where he had accepted an appointment in the city hospital as ward nurse for a period of three years, after which he became resident physician. At the conclusion of his services in Quincy, he entered the American Medical College at St. Louis and graduated with the class of 1875-76. He located in Ash Grove, Davis County, Iowa, in 1876; moved to Ormanville in 1883, and in 1886 established his home in Blakesburg, Iowa, where he remained until his death occurred in 1920. He operated the first drug store in Blakesburg in connection with an extensive country practice. He was surgeon for the Chicago, Milwaukee and St. Paul Railway, vice president of the Blakesburg Savings Bank, and president of the Des Moines Valley Medical Association at the time of his death. He was also a member of the Wapello County Medical Society, the Iowa State Medical Society, and the American Medical Association. Always a courteous gentleman, Dr. Torrence was a skilled physician and enjoyed the confidence of his confreres.

Dr. Torrence married Miss Mary A. Wyatt of Wapello County in 1879. They had three children—Olive, Mary and John. Mrs. Olive Torrence Thode resides in Ottumwa.

Dr. W. B. La Force was born October 14, 1867, at Mt. Pleasant, Iowa, and died from an injury sustained aboard ship during a severe storm midway between Yokohama, Japan, and Honolulu, on December 2, 1936. At his request he was buried at sea.

He received his early education in the schools of Agency City and Ottumwa, graduating from the State University of Iowa with the degree of Ph.B. with the class of 1888. He received his degree of doctor of medicine from the Chicago Medical College, after which he went to the University of Vienna for postgraduate study. Soon after his return from Europe he was made Professor of Pathology and Bacteriology at the Keokuk Medical College; and later, after consolidation of the two schools, he was appointed to the Chair of Surgery. After the closing of the Keokuk Medical College he returned to Ottumwa and engaged in the practice of medicine and surgery until December, 1917, at which time he was appointed head of the Medical Department of the Tsin Hua College located near the eastern wall of Peiping, China. After serving twelve years in this capacity, as well as surgeon to the faculty and student body, he returned to the United States and established his home in Pasadena, California. During the following several years the La Force home became the mecca for numerous Chinese in America who had been connected with his college work in the Orient. For many years Dr. and Mrs. La Force were enthusiastically engaged in missionary work. During his twelve years of service in China they

returned to America at three-year intervals, and while on furlough he lectured to various groups and organizations on the nature of his foreign work.

Dr. La Force was intensely interested in the Oxford group movement, and in 1936, he and his wife returned to China to further its advancement. It was during their return trip from this Oriental visit that the fatal accident occurred.

Dr. W. B. La Force married Miss A. Carolina Bousquet at Pella, Iowa. She died December 3, 1943. They had no children.

Dr. Daniel A. La Force was born in Jefferson County, Indiana, May 17, 1837. His father, Daniel G. La Force, was a native of Kentucky. He moved to Jefferson County, Indiana, in early life, and there married Miss Margaret Monroe. In 1842 the La Force family moved to this state, first settling in Van Buren County. In 1853 they came to Wapello County, settling on a farm in Washington Township where he remained until his death occurred August 2, 1863. Daniel was five years old when he came to Iowa with his parents in 1842. His premedical education was obtained in the common schools and Western University at Mt. Pleasant, Iowa. In 1858 he commenced the study of medicine, graduating from the College of Physicians and Surgeons at Keokuk in 1862. He was Regimental Surgeon in the 56th Colored Infantry and later had charge of the U. S. General Hospital at Helena, Arkansas, finally becoming Medical Director for the District of Eastern Arkansas.

Having been mustered out of service September 15, 1866, he returned to Iowa, locating in Mt. Pleasant, where he practiced medicine until 1869. He then moved to Burlington and engaged in the practice of medicine there for two years, after which he moved to Agency City. There he operated a drug store and practiced medicine for fourteen years. He then moved to Ottumwa where he continued in the practice of medicine until a few years before his death. When he came to Ottumwa in 1884 he purchased the Castor House, formerly the Paul Castor Infirmary, and changed the name to the La Force House. It was a four story brick structure containing one hundred rooms. It was in this building that Drs. D. A., W. B., and B. D. La Force, together with Dr. A. O. Williams and Dr. Phillpott, established the Hawkeye Hospital, which was taken over by the Ottumwa Hospital Association when it was organized in 1892.

Dr. D. A. La Force was not only a prominent physician and surgeon in the earlier medical days of Wapello County, but he also took an active part in its social, civic, and political affairs, serving

as mayor of Ottumwa from 1893 to 1897. He represented Wapello County in the Twenty-first Iowa General Assembly. He was a member of the Wapello County Medical Society, the Des Moines Valley Medical Association, the Iowa State Medical Society, and the American Medical Association.

Dr. La Force was married to Miss Mahala J. Dudley, October 18, 1866, at Mr. Pleasant, Iowa. Miss Dudley was the daughter of Rev. Edward and Eliza Dudley of Athens, Ohio. To them were born four children: Dr. W. B. La Force, whose accidental death occurred December 2, 1936; Dr. B. D. La Force, of Pasadena, California; C. R. La Force of Pasadena, California, and Dr. E. F. La Force of Burlington, Iowa.

Dr. D. A. La Force died at his home in Ottumwa in 1912. He is buried in the Ottumwa cemetery.

(Continued next month)

CIVILIAN BLOOD DONOR RECRUITING PROGRAM ANNOUNCED BY RED CROSS

American Red Cross chapters throughout the nation will be permitted to recruit blood donors for civilians under a program announced by National Chairman Basil O'Connor. Under this project any Red Cross chapter may take part in the operation of a donor center for civilians sponsored by a recognized medical or health agency. The blood collected and the blood derivatives produced will be made available without cost to physicians, hospitals, clinics and patients.

This civilian program is entirely separate from the Blood Donor Service operated by the American Red Cross for the armed forces, and chapters in the eleven metropolitan centers where the Red Cross is now recruiting donors for the Army and Navy will not participate in it. These are: Los Angeles, San Francisco, Oakland, Portland, Ore., San Diego, Chicago, New York, Brooklyn, Boston, Philadelphia, and Washington.

The formal announcement of the new program stated in part: "The need for provision of blood and such derivatives as blood plasma and immune (measles) globulin in amounts sufficient to meet civilian needs is very real and great. Their unique and vital place in medical practice, so strongly emphasized by the war, is becoming widely recognized by medical and health agencies throughout the country, and many of these agencies already have developed or are planning programs to insure the provision of blood and its derivatives to meet civilian needs. The American Red Cross is now preparing to help its chapters to assist in this essential service."

Assistance in establishing standards and conducting a civilian program will be made available to chapters through the five Red Cross area offices. The new project will be supervised by an advisory committee of specialists to be appointed.

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

THE OSSEOUS SYSTEM, A Handbook of Roentgen Diagnosis—By Vincent W. Archer, M.D., Professor of Roentgenology, University of Virginia Department of Medicine. The Year Book Publishers, Inc., Chicago, 1945. Price, \$5.50.

DISEASES OF THE BREAST—By Charles F. Geschickter, M.D., Lt. Comdr., M.C., U.S.N.R., Director of the Francis P. Garvan Cancer Research Laboratory, Pathologist, St. Agnes Hospital, Baltimore; with Special Section on Treatment in Collaboration with MURRAY M. COPELAND, M.D., Instructor in Surgery, Johns Hopkins Medical School, Visiting Surgeon and Assistant Oncologist, University Hospital, University of Maryland Medical School, Visiting Oncologist, Baltimore City Hospital. Second edition. J. B. Lippincott Company, Philadelphia, 1945. Price, \$12.00.

CLINICAL PARASITOLOGY—By Charles Franklin Craig, M.D., Col., A.U.S. (Retired), Formerly Director, Army Medical School, and Assistant Commandant, Army Medical Center, Washington, D. C., Emeritus Professor of Tropical Medicine in the Tulane University of Louisiana, New Orleans; and ERNEST CARROLL FAUST, Ph.D., Professor of Parasitology in the Department of Tropical Medicine, Tulane University of Louisiana, New Orleans, Consultant to the Secretary of War, Army Epidemiologic Board on Epidemic and Tropical Diseases, Consultant U. S. Public Health Service, Honorary Consultant, Army Medical Library. Fourth edition, thoroughly revised. Lea & Febiger, Philadelphia, 1945. Price, \$10.00.

THE 1944 YEAR BOOK OF INDUSTRIAL AND ORTHOPEDIC SURGERY—Edited by Charles F. Palnter, M.D., Orthopedic Surgeon to the Massachusetts Women's Hospital and Beth Israel Hospital, Boston. The Year Book Publishers, Chicago, 1945. Price, \$3.00.

A MANUAL OF SURGICAL ANATOMY—Prepared under the Auspices of the Committee on Surgery of the Division of Medical Sciences of the National Research Council, by Tom Jones and W. C. Shepard. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

SYNOPSIS OF GENITOURINARY DISEASES—By Austin I. Dodson, M.D., Professor of Genitourinary Surgery, Medical College of Virginia; Genitourinary Surgeon to the Hospital Division, Medical College of Virginia; Genitourinary Surgeon to Crippled Children's Hospital; Urologist to St. Elizabeth's Hospital; Urologist to St. Luke's Hospital and McGuire Clinic. Fourth edition. The C. V. Mosby Company, St. Louis, 1945. Price, \$3.50.

TREATMENT IN GENERAL PRACTICE—By Harry Beckman, M.D., Professor of Pharmacology, Marquette University, School of Medicine, Milwaukee, Wisconsin, Fifth edition, reset. W. B. Saunders Company, Philadelphia, 1945. Price, \$10.00.

PHYSICAL DIAGNOSIS—By Ralph H. Major, M.D., Professor of Medicine, The University of Kansas, Kansas City, Kansas. Third edition, revised. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

BEDSIDE CLINICS of Francis D. Murphy, M.D., Professor and Head of the Department of Medicine of the Marquette University Medical School and Clinical Director of the Milwaukee County General Hospital and Emergency Unit. Volume I. Marquette University Press, Milwaukee, 1945.

FACIAL PROSTHESIS—By Arthur H. Bulbulian, M.S., D.D.S., F.A.C.D., Director, Museum of Hygiene and Medicine, The Mayo Foundation, Rochester, Minnesota. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

CLINICAL BIOCHEMISTRY—By Abraham Cantarow, M.D., Professor of Physiological Chemistry, Jefferson Medical College, formerly Associate Professor of Medicine, Jefferson Medical College, and Assistant Physician, Jefferson Hospital; and MAX TRUMPER, Ph.D., Lt. Comdr., H(S), U.S.N.R., Naval Medical Research Institute, National Naval Medical Center, Bethesda, Md., formerly in charge of the Laboratories of Biochemistry of the Jefferson Medical College and Hospital. Third edition, revised. W. B. Saunders Company, Philadelphia, 1945. Price, \$6.50.

BOOK REVIEWS

THE CARE OF THE NEUROSURGICAL PATIENT

Before, During and After Operation

By Ernest Sachs, M.D., Professor of Clinical Neurological Surgery, Washington University School of Medicine, St. Louis. The C. V. Mosby Company, St. Louis, 1945. Price, \$6.00.

The author's ability as a neurosurgeon is not questioned. That he is not less qualified as a teacher is immediately evident when one knows of the prominent positions held by many of his fellows. This book contains the information which the author as a teacher provides his fellows by word and deed during their period of training. The style is a combination of a person-to-person chat and a serious lecture. One senses the author's constant mindfulness of the need to satisfy the boys he has taught, from whom he has learned and to whom the book is dedicated, and his responsibility to them to provide all that the title promises. His personality is inevitably woven into such a work.

Knowing the author's objective has been superbly accomplished, one readily excuses occasional excessive emphasis on seeming trivialities; one overlooks some lack of detail in certain descriptions of operative procedures. The important fact is that the content of this book, well illustrated by drawings, photographs and case records, is invaluable not only to

those whose ambition it is to be a neurosurgeon but to any nurse or house officer whose duty includes the care of surgical patients. It provides well that for which it was intended: the details necessary to the adequate care of the neurosurgical patient.

F. R. P.

THE 1944 YEAR BOOK OF GENERAL SURGERY

Edited by Evarts A. Graham, M.D., Professor of Surgery, Washington University School of Medicine; Surgeon-in-Chief of the Barnes Hospital and of the Children's Hospital, St. Louis. The Year Book Publishers, Inc., Chicago, 1944. Price, \$3.00.

This book follows the high standards of its previous issues and, although published during a war time year, apparently has not suffered in the least.

The close association of general surgery with military medical practice has led to unparalleled opportunities for research in this field. Most of these important advances during the year 1944 have been concisely and clearly presented in this volume. Especially valuable are discussions of the new antibacterial agents, shock, burns and treatment of wounds.

The problem of phlebothrombosis and thrombophlebitis is at last being given the attention it deserves; it is thoroughly discussed from both medical and surgical aspects. Many new and modi-

fied surgical technics are introduced, among which is the application of thrombin and fibrinogen in the fixation of skin-grafts.

As always the editorial comments of Dr. Graham are to the point and well worth consideration. This book should be in the library of every busy general surgeon.

T. D. T.

THE TREATMENT OF PEPTIC ULCER

By George J. Heuer, M.D., Professor of Surgery, Cornell University Medical College, and Surgeon-in-Chief of the New York Hospital. Assisted by CRANSTON HOLMAN, M.D., Assistant Professor of Clinical Surgery, Cornell University Medical College, and WILLIAM A. COOPER, M.D., Assistant Professor of Clinical Surgery, Cornell University Medical College. J. B. Lippincott Company, Philadelphia, 1944. Price, \$3.00.

This is a 115 page book in which the author gives a critical review of 1,204 patients with peptic ulcer admitted to the New York Hospital over a ten-year period (1932-1942).

A study of the results as shown by careful follow-up examination and treatment of these patients is the meat of the entire work. A wealth of data was assembled for him by two junior authors, Doctors Holman and Cooper, and from this and his own study of the literature he has given his interpretation of the findings and evaluations of the treatments, both surgical and medical.

Details of the medical management for peptic ulcer and of surgical technic are not included, and records of ambulatory patients with uncomplicated peptic ulcer, who had not been admitted to the wards of the hospital, were not included. It is, therefore, a presentation of the successes and failures of both conservative and radical methods of treatment in the more protracted or complicated cases. The relative efficiency of the various diagnostic measures are shown.

In reading this book one is impressed by the fairness of interpretation.

C. A. S.

FACIAL PROSTHESIS

By Arthur H. Bulbulian, M.S., D.D.S., Director, Museum of Hygiene and Medicine, The Mayo Foundation, Rochester, Minnesota. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

During the past few years several articles have appeared in the periodicals concerning facial prostheses. Nearly all of these have given only vague discussions as to the technic involved in the preparation of these aids. Such articles have proved a source of irritation to a reader who wished concrete facts on the subject.

Now for the first time, as far as the reviewer is able to determine, there has been published a concise step-by-step manual of instructions for the making of prosthetic appliances. The discussions are so simplified and the illustrations so clear that light

is brought to bear on many points that would otherwise seem baffling and obscure. Dr. Bulbulian has even taken care to list the names of commercial firms from which materials can be obtained, a point greatly appreciated by those who have tried independently to procure some of the not too familiar products.

It is only to be regretted that the text was prepared at a time when the newer resilient plastics could not be given more consideration.

The book is well worth while to anyone interested in the making of prosthetic appliances.

W. C. H.

WOMAN'S AUXILIARY NEWS

(Continued from page 451)

informed on these vital matters. *Hygeia* has the answers. Its editorials are excellent. Let us ask ourselves these questions:

1. Are you fully informed on suggested medical legislative measures? **READ HYGEIA.**
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4. Are you doing your share in helping your local clubs by bringing to their attention the magazine that explains our health problems? **ADVISE READING HYGEIA.**
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8. Are you making a survey of your state to see how we can make *Hygeia* the "Household Medical Book"? Read *Hygeia* for better health for the whole family to explode nostrums and quackery.

Keep Hygeia in circulation to insure a healthy nation.

—"Bulletin of the Woman's Auxiliary to the American Medical Association," August, 1945.

SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 2:45 p. m.

WSUI—Thursdays at 9:30 a. m.

- Nov. 7-8 The Development of X-ray
Siegmond F. Singer, M.D.
- Nov. 14-15 Venereal Disease
Wayland K. Hicks, M.D.
- Nov. 21-22 Mumps and Whooping Cough
Harry L. Vander Stoep, M.D.
- Nov. 28-29 Early Danger Signals in Heart Disease
Horace M. Korn, M.D.

SOCIETY PROCEEDINGS

Black Hawk County

The regular monthly meeting of the Black Hawk County Medical Society was held Thursday, October 11, at 6:30 p.m. at Black's Tea Room in Waterloo. Lester R. Dragstedt, M.D., Professor of Surgery at the University of Illinois College of Medicine, presented a paper on Section of the Vagus Nerves to the Stomach in the Treatment of Gastroduodenal Ulcer.

S. A. Barrett, M.D., Secretary

Greene County

The Greene County Medical Society held its regular meeting at the Greene County Hospital in Jefferson Thursday evening, October 18. Following dinner Walter R. Fieseler, M.D., of Ft. Dodge, addressed the group on Renal Calculus.

J. R. Black, M.D., Secretary

Johnson County

The October meeting of the Johnson County Medical Society was held at Hotel Jefferson in Iowa City Wednesday, October 3, at 6:00 p.m. The scientific program was devoted to Alcoholics Anonymous. Two representatives of the group discussed the organization, following which Wilbur R. Miller, M.D., opened a discussion and question period concerning the organization and the part played by the medical profession in aiding alcoholics.

R. H. Flocks, M.D., Secretary

Marion County

The Marion County Medical Society honored Dr. Edward P. Bell of Pleasantville at a luncheon Tuesday noon, October 9, at Albert's Cafe in Knoxville in recognition of his completion of fifty years of service rendered in the practice of medicine. Dr. Bell was presented the pin and certificate of membership of the Fifty Year Club.

Page and Taylor Counties

The County Medical Societies of Page and Taylor Counties held a joint meeting Thursday evening, September 20, at the Linderman Hotel in Clarinda. Following the six-thirty dinner Charles A. Owens, M.D., Assistant Professor of Urology at the University of Nebraska College of Medicine, spoke on Office Practice of Urology.

Scott County

The October meeting of the Scott County Medical Society was held Tuesday evening, October 2, at six o'clock, at the Lend-A-Hand Club in Davenport. Four Davenport physicians who have been in the armed forces told of their experiences abroad. The honored guests were Lt. Col. Merle J. Brown, Major

Leo H. LaDage, Capt. Thomas W. McMeans, and Capt. Stanley F. Smazal.

L. J. Miltner, M.D., Secretary

Washington County

The Washington County Medical Society held a dinner meeting at the nurses home in Washington Thursday evening, October 4. The guest speaker of the evening was Robert T. Tidrick, M.D., of the Department of Surgery at the State University of Iowa College of Medicine, who presented an illustrated lecture on Treatment of Burns.

Woodbury County

The October meeting of the Woodbury County Medical Society was held at the Martin Hotel in Sioux City Thursday, October 11, at 6:30 p.m. The scientific program was comprised of a lecture on Diagnosis and Treatment of Gonorrhea by Percy S. Pelouze, M.D., of the United States Public Health Service. Dr. Pelouze is Assistant Professor of Urology at the University of Pennsylvania School of Medicine. This was one of a series of seven lectures on this subject presented throughout the state by Dr. Pelouze under the sponsorship of the Iowa State Department of Health and the Speakers Bureau of the Iowa State Medical Society.

F. D. McCarthy, M.D., Secretary

PERSONAL MENTION

The JOURNAL is pleased to announce the release of the following physicians from active military duty:

Dr. Albert E. Ady has resumed his practice in West Liberty after receiving his discharge from the Navy. Dr. Ady, a Commander in the Medical Corps, served in the Pacific Theater of Operations.

Dr. James W. Agnew has returned to the Department of Surgery at the University Hospitals in Iowa City after serving in the Army Medical Corps since the latter part of 1942. Dr. Agnew held the rank of Captain at the time of his release.

Dr. James W. Allen has also returned to the University Hospitals in Iowa City. He was a Major in the Army Medical Corps at the time he was released after more than three years of active duty.

Dr. Reuben E. Almquist has resumed his practice in Albert City after receiving his discharge from the Army Medical Corps. Dr. Almquist held the rank of Captain at the time of his release.

Dr. N. Boyd Anderson is reopening his office in the Bankers Trust Building in Des Moines on No-

vember 1. Colonel Anderson has been on active duty with the Army Medical Corps since January 1941.

Dr. Stanley N. Anderson has announced he will reopen his office in Onawa on November 1. Lt. Anderson received his discharge from the Navy Medical Corps on October 10 after more than two years of active duty.

Lt. Col. Fred H. Beaumont, M.C., of Council Bluffs, plans to return to his practice at the Council Bluffs Clinic about the first of next year; he is on terminal leave until January 17, 1946. Col. Beaumont was captured in Africa in February, 1943, and was a prisoner of the Germans until spring of this year.

Dr. Herbert N. Boden, who formerly practiced in Truro, has been released from active duty and is locating in Osceola where he will be associated with Dr. H. E. Stroy in the Osceola Hospital.

Dr. Kenneth M. Brinkhous has returned to the University Hospitals in Iowa City after receiving his discharge from the Army Medical Corps. Dr. Brinkhous, who returned recently from the Pacific area, held the rank of Lieutenant Colonel at the time of his release.

Dr. Sidney Brody has resumed his practice in Ottumwa after serving more than three years with the Army Medical Corps. He was a Colonel at the time of his release.

Dr. Harold McK. Bunch plans to resume his practice in Shenandoah. He was recently released from active duty in the Navy Medical Corps where he served as a Lieutenant Commander.

Dr. Glen E. Burbridge, who was located in Logan prior to entering military service, has now received his discharge and is establishing an office for the practice of medicine in Nebraska City, Nebraska. Dr. Burbridge served as a Major with the Army Medical Corps.

Dr. Floyd M. Burgeson of Des Moines has received his discharge and plans to resume his practice in the near future. Dr. Burgeson, a Major in the Army Medical Corps, was captured in Africa in February, 1943, and was a prisoner of the Germans until spring of this year. He entered military service in February 1941.

Dr. Willard O. Courter has received his release from active duty and plans to resume his practice in Springville. Dr. Courter, a Major in the Army Medical Corps, has just recently returned from overseas.

Dr. Milton A. Dushkin plans to resume his practice in Des Moines. He has recently received his discharge from the Army after having been on active duty since February 1941. Dr. Dushkin held the

rank of Lieutenant Colonel in the Medical Corps at the time of his release.

Dr. Daniel S. Egbert, who formerly practiced in Atlantic, has now been released from active duty with the Army Medical Corps and has established an office in the Physicians Building in Fort Dodge. Dr. Egbert held the rank of Major at the time of his release.

Dr. Veryl J. Elson, who was located in Danbury before entering military service, has now received his discharge. Dr. Elson served as a Captain with the Army Medical Corps in the European Theater of Operations.

Dr. Albert J. Entringer has resumed his practice in Dubuque. He was released from active duty on September 7 after spending more than two years in the South Pacific. Dr. Entringer held the rank of Captain in the Army Medical Corps.

Dr. Elmo E. Gamet has returned to Lamoni and will reopen his office there in the near future. At the time of his discharge Dr. Gamet held the rank of Major in the Army Medical Corps.

Dr. Albert J. Gantz has resumed his practice in Greenfield after serving more than three and a half years as a flight surgeon in the Army Air Forces, two years of which were spent in the Pacific area. Dr. Gantz held the rank of Captain at the time of his release.

Dr. Leo A. Gaukel plans to reopen his office in Onawa on November 1. Dr. Gaukel, who served as a Captain in the Army Medical Corps, received his discharge after three years of active duty.

Dr. Everett M. George plans to resume his practice in Des Moines early in November. Dr. George has been on active duty with the Navy Medical Corps since February 1941 and held the rank of Commander at the time of his release.

Dr. Edward B. Grossmann has received his discharge from the Army Medical Corps and has resumed his practice of medicine in Orange City. Dr. Grossmann, who was a Captain at the time of his release, has just recently returned from overseas duty.

Dr. John F. Hardin has reopened his office in Bedford after serving three years with the Army Medical Corps in the United States and Pacific area.

Dr. Francis W. Hobart has resumed his practice of medicine in Lake City and has reopened the McVay Memorial Hospital. Dr. Hobart received his discharge after serving as a Captain in the Army Medical Corps for thirty-eight months, twenty-one of which were spent overseas.

Dr. Francis W. Houlihan has received his discharge from the Army Medical Corps and has resumed his practice in Ackley. Dr. Houlihan held the rank of Captain at the time of his release.

Dr. Bruce F. Howar has been released from active duty and plans to re-enter the practice of medicine in Iowa. Dr. Howar, who held the rank of Major, served more than three years with the Army Medical Corps.

Dr. Audra D. James plans to resume his practice in Des Moines on November 1. He has recently received his discharge after having been on active duty since March 1941. Dr. James held the rank of Captain in the Navy Medical Corps at the time of his release.

Dr. David Kaplan has received his discharge from the Army Medical Corps and plans to resume his practice in Sioux City. Dr. Kaplan, who held the rank of Captain, has just returned from overseas duty.

Dr. John J. Keith has resumed his practice in Marion after serving more than three years in the Army Medical Corps. Dr. Keith held the rank of Major at the time of his release.

Dr. John I. Limburg, Jr., of Jefferson, has received his discharge and is again associated with his father, Dr. J. Irwin Limburg of Jefferson. At the time of his release Dr. Limburg was a Major in the Army Medical Corps.

Dr. Phillips E. Lohr has resumed his practice in Churdan after being released from active duty with the Navy Medical Corps. He held the rank of Lieutenant at the time of his release.

Dr. Draper L. Long, recently returned from twenty-one months overseas as flight surgeon with the Fifteenth Army Air Force in Italy, has reopened his office in the Foresters Building in Mason City. Dr. Long, a Captain in the Medical Corps, entered military service in August 1942.

Dr. Gerhard W. Lorfeld has received his discharge and plans to reopen his office in the First National Bank Building in Davenport on November 5. Dr. Lorfeld, a Captain in the Army Medical Corps, was on active duty three years.

Dr. Ernest C. Magaret plans to reopen his office in Glenwood after three years in the Army Medical Corps, two years of which were spent in Alaska. Dr. Magaret, who held the rank of Captain, has just recently been discharged.

Dr. Sydner D. Maiden of Council Bluffs, who has served more than three years in the Army Medical Corps, has recently been released from active duty. He held the rank of Major at the time of his release.

Dr. Robert E. Mailliard has resumed his practice in Storm Lake after receiving his discharge from active duty. Dr. Mailliard entered the service in March 1941 and served in the European Theater after December 1943; at the time of his release he held the rank of Lieutenant Colonel.

Dr. Walford D. Marrs, who practiced in Tabor before entering military service, has received his discharge from the Army Medical Corps and is locating in Fort Worth, Texas, where he will be associated with Dr. Alden Coffey. Dr. Marrs held the rank of Captain at the time of his release.

Dr. Dwight A. Mater has resumed his practice in Knoxville after receiving his release from active duty with the Army Medical Corps. Dr. Mater, a Major in the Medical Corps, entered service in April 1941.

Dr. Thomas W. McMeans plans to resume his practice in Davenport after having been released from active military service. Dr. McMeans, a Captain in the Army Medical Corps, returned recently from the European Theater of Operations.

Dr. Clyde B. Meffert of Cedar Rapids has just recently received his discharge and has returned to Cedar Rapids where he will resume his medical practice. Dr. Meffert, a Lieutenant Colonel in the Army Medical Corps, returned from the European Theater the latter part of July.

Dr. Milo G. Meyer of Marshalltown has received his discharge from the Army Medical Corps and plans to reopen his office sometime in November. Dr. Meyer, who has been in service since 1942, was a Lieutenant Colonel at the time of his release.

Dr. Roger M. Minkel, who was located in Newton prior to entering military service, has now received his discharge and is establishing an office in the Carver Building in Fort Dodge. Dr. Minkel, a Lieutenant Colonel in the Army Medical Corps, entered service in February 1941.

Dr. John R. Morrison of Carroll was released from active military duty on September 30 after five years of service. He has resumed the practice of medicine in Carroll where he is associated with his father and brother in the Morrison Clinic. Dr. Morrison held the rank of Major in the Army Medical Corps.

Dr. Roland B. Morrison has received his discharge from the Army Air Forces after three and a half years of service, twenty-seven months of which were spent in England and Africa. He has resumed his association with his father and brother in the Morrison Clinic in Carroll. Dr. Morrison served as a Captain in the Medical Corps.

Dr. Robert C. Mugan has recently received his discharge from the Army Medical Corps and has

resumed his practice at his prewar location in the Badgerow Building in Sioux City. Dr. Mugan, a Captain in the Medical Corps, entered military service in 1942.

Dr. Roscoe M. Needles has just recently received his discharge from the Army Medical Corps after being on active duty since August 29, 1942. Dr. Needles, who returned from Europe the first of October, plans to reopen his office in Atlantic. Dr. Needles held the rank of Captain at the time of his release.

Dr. Leo R. Pearlman has received his discharge and has opened an office in the Equitable Building in Des Moines. Dr. Pearlman, a Major at the time of his release, had been on active duty in the Army Medical Corps since February 1941.

Dr. Arthur G. Plankers has been released from active duty and has resumed his practice in Dubuque where he is connected with the Medical Associates. Dr. Plankers, a Major in the Army Medical Corps, is a veteran of both World Wars; he entered World War II early in 1942.

Dr. Herbert W. Rathe has rejoined the staff of the Rohlf Memorial Clinic in Waverly after having served in the Army Medical Corps since October 1942. Dr. Rathe, who served in England sixteen months, was a Lieutenant Colonel at the time of his release from active duty.

Dr. Paul C. Richmond has resumed his practice in New Hampton after four and a half years of service in the Army. Dr. Richmond, a Major in the Medical Corps, returned from the European Theater in September.

Dr. Harold J. Richter has recently received his discharge from the Army Medical Corps after thirty-five months of service and plans to reopen his office in Albia. Dr. Richter held the rank of Major at the time of his release.

Dr. Cyril J. Ryan has resumed his practice in Creston after receiving his discharge from the Army. Dr. Ryan served as a Captain in the Medical Corps.

Dr. Leo B. Sedlacek has recently received his release from service and has resumed his practice in Cedar Rapids. He served with the Army Medical Corps for more than three years and held the rank of Colonel at the time of his release.

Dr. Robert S. Shane has returned to his practice at Pilot Mound after serving as State Medical Adviser of the Iowa Selective Service System since November 1940. Dr. Shane, a Lieutenant Colonel in the Army Medical Corps, was located at the headquarters office in Des Moines throughout his entire period of service.

Dr. Thomas E. Shonka has been released from military service and has reopened his office in Malvern. Dr. Shonka served as a Captain in the Army Medical Corps and just recently returned from Europe.

Dr. Stanley F. Smazal has received his discharge and plans to resume his practice of medicine in Davenport. Dr. Smazal served as a Captain with the Army Medical Corps in the European Theater of Operations.

Dr. Howard H. Smead has recently been released from active military duty and plans to re-enter the practice of medicine in Iowa. Dr. Smead was a Captain in the Army Medical Corps at the time of his release.

Dr. Jacob J. Stegman has received his discharge from the Army Medical Corps and plans to resume his practice in Marshalltown. Dr. Stegman served as a Major in the European Theater of Operations.

Dr. Charles H. Swift, Jr., has received his release from military service and has returned to Marcus where he will re-enter the practice of medicine. Dr. Swift served as a Captain in the Army Medical Corps in the Pacific Theater.

Dr. Oral L. Thorburn has resumed his practice in Ames after three years and three months of military service. Dr. Thorburn, a Major in the Medical Corps of the Army Air Forces, was discharged as of September 28, 1945.

Dr. Donald W. Todd has been released from active duty with the Army and plans to resume his practice in Guthrie Center about the first of November. He served with the Medical Corps for three years and was a Captain at the time of his release.

Dr. George J. Van Besien has been released from the Army and has resumed his practice in Decorah. He was on active duty for more than three years and was a Captain at the time of his release.

Dr. Ellis K. Vaubel, who was associated with the Iowa State Department of Health prior to entering military service in December 1940, has now received his discharge and plans to enter private practice in Iowa. Dr. Vaubel held the rank of Captain in the Army Medical Corps.

Dr. John F. Veltman has received his discharge from the Army Medical Corps and plans to resume his practice in Winterset in the near future. Dr. Veltman, a Captain in the Medical Corps, recently returned from the Pacific Theater.

Dr. David Wall has resumed his practice in Ames after receiving his discharge from the Army. He served with the Army Medical Corps in the European Theater of Operations.

Dr. Seth G. Walton has received his discharge from the Army Medical Corps and has returned to Hampton where he is associated in the Hampton Clinic with Dr. H. H. Johnston. Dr. Walton served as a Major with the Medical Corps in Europe.

Dr. Stephen C. Ware of Kaiona has been discharged from the Army and plans to take a refresher course before resuming his practice. Dr. Ware, a Major in the Medical Corps, served in the China-Burma-India area and just recently returned to the States.

Dr. Ralph L. Wicks, who was located in Winterset before entering military service, has now received his discharge. Dr. Wicks served as a Lieutenant Colonel with the Army Medical Corps in the European Theater of Operations.

Dr. Charles A. Laughead, formerly at the University Hospitals in Iowa City, is now associated with Dr. John B. Synhorst of Des Moines.

Dr. Ivan E. Brown has opened an office in Forest City for the practice of medicine and surgery. Dr. Brown was graduated in 1944 from the Washington University School of Medicine and has just completed medical and surgical internships at the Iowa Methodist Hospital in Des Moines.

Dr. James D. Mahoney has recently become associated in the practice of neuropsychiatry with Dr. William E. Ash of the Council Bluffs Clinic. Dr. Mahoney was graduated in 1935 from the University of Pittsburgh School of Medicine and for the past six years has been Clinical Director of Psychiatry at the Norristown State Hospital at Norristown, Pennsylvania.

Dr. Robert Lee has established an office in Algona for the general practice of medicine. Dr. Lee was graduated in 1944 from the State University of Iowa College of Medicine and served his internship at Iowa Methodist Hospital in Des Moines.

Dr. Lee Anderson, formerly of the Mayo Clinic in Rochester, has located in Council Bluffs where he has opened an office in the Bennett Building.

Dr. Clarence Harman, who was formerly located in Burlington, has opened an office in Emerson for the general practice of medicine.

Dr. Rosabell A. Butterfield of Indianola has announced her retirement from the active practice of medicine and plans to spend the winter months traveling. Dr. Butterfield is a life member of the State Society.

Dr. William J. K. Findley of Sac City has retired from the active practice of medicine after a continuous medical service of nearly fifty-two years. He is a life member of the State Society.

Dr. Fred H. Howard of Strawberry Point retired from active practice on October 1 after sixty years of service in that community.

Dr. Thaddeus A. Minassian of Des Moines has been forced to retire from active practice because of ill health.

Dr. Frank O. Richards of Winterset has retired from active practice and has moved to Santa Ana, California.

DEATH NOTICES

Bening, John Frederick, of Clarinda, aged sixty-nine, died October 13 of a heart attack. He was graduated in 1904 from the University of Nebraska College of Medicine, and at the time of his death was a member of the Page County and Iowa State Medical Societies.

Brubaker, John Francis R., of Hubbard, aged eighty-six, died October 11 following a long illness. He was graduated in 1885 from the College of Physicians and Surgeons of Baltimore, and at the time of his death was a member of the Hardin County and Iowa State Medical Societies.

Bullock, Alfred H., of Cushing, aged seventy-one, died September 21 after a lingering illness. He was graduated in 1900 from the Sioux City College of Medicine, and at the time of his death was a member of the Woodbury County and Iowa State Medical Societies.

Fletcher, Frederick William, of Hinton, aged sixty-five, died September 12 following a paralytic stroke. He was graduated in 1912 from the Creighton University School of Medicine, and at the time of his death was a member of the Woodbury County and Iowa State Medical Societies.

Saylor, Herbert Bittner, of Des Moines, aged sixty-eight, died September 23 following an illness of two months. He was graduated in 1908 from Rush Medical College, and at the time of his death was a member of the Polk County and Iowa State Medical Societies.

Ward, Dell Warner, of Oelwein, aged sixty-three, died September 29 following a week's illness. He was graduated in 1906 from the University of Michigan Medical School, and at the time of his death was a member of the Fayette County and Iowa State Medical Societies.

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DENGUE

Report of an Epidemic

CAPTAIN WALTER M. BLOCK, M.C., A.U.S.

An epidemic of dengue, which we had an opportunity to study, occurred somewhere on the east coast of New Guinea. Although mainly a tropical disease, dengue does occur in the United States, especially in the Gulf States. It is therefore important that both the medical officer and the civilian doctor familiarize himself with this disease.

Dengue is caused by a filtrable virus that can be found in the bloodstream from the onset of the disease until the third day of illness. It is transmitted by mosquitoes of the *Aedes* family. Immunity conferred by an attack of dengue is variable, but it is assumed to persist for at least six months.

Epidemics of dengue occur with dramatic suddenness and vary greatly in the appearance of the clinical picture. The epidemic which we encountered, took place between the months of January and March and subsided in April 1944.

An interesting article by Colonel Kisner and Captain Lisansky¹ corroborates the fact that dengue presents itself in a great variety of clinical pictures. It was observed, for instance, that cases appearing after the actual epidemic had nearly died down offered different features than patients hospitalized during the height of the epidemic. It may be assumed that changes in virulence or various types of virus are responsible for this fact. The same assumption may also explain why some of the objective findings, such as emesis, rash, and lymphocytosis, occurred in greater numbers during the epidemic observed here than in the one reported by Kisner.

Since the mortality is practically nil, little is known about the pathology of the disease.

Some of the symptoms are so typical that a diagnosis can almost be made by listening to the patient's history. It should be stressed, however,

that many patients do not present typical textbook pictures. In our study there were several cases without such characteristic findings as the macular rash, the leukopenia, or the so-called saddle back type of fever. Yet, these patients offered enough other findings to justify the diagnosis of dengue.

SYMPTOMATOLOGY

Our series comprised a total of 350 patients. After the elimination of all doubtful cases, 270 were selected for this discussion. All patients were examined not later than four hours after admission, and throughout their hospital stay were seen at least twice daily by the ward surgeon and at frequent intervals by the chief of the medical service. Daily progress notes were kept on every patient. We believed the cases in this selected group could definitely be diagnosed as dengue.

Of the characteristic, subjective symptoms, generalized muscular aches and pains were most frequently found. These pains were described by the patient as deep seated, as joint pains, or as aching bones (hence the synonym "breakbone fever"); the majority of patients, however, localized the aching into the muscles. A statement commonly heard was: "I am aching all over." Among the parts of the body involved, the knees and the lower part of the back were especially affected. Bilateral headache, mostly frontal and supra-orbital, and pain behind the eyeballs with discomfort on ocular movements constituted another constant complaint.

The onset of the disease was invariably sudden. It started with general malaise and in over half of the cases with a more or less pronounced sensation of chilliness which lasted from one-half to six and eight hours or longer, or was intermittent in character (Table I). Some patients became ill so suddenly that they were able to remember the exact hour of day when clinical symptoms set in. Many began to feel sick in the late afternoon and then felt chilly throughout most of the night. Nine patients experienced a frank, shaking chill.

TABLE I
FREQUENCY OF CHARACTERISTIC SYMPTOMS AND
OBSERVATIONS
(270 Cases)

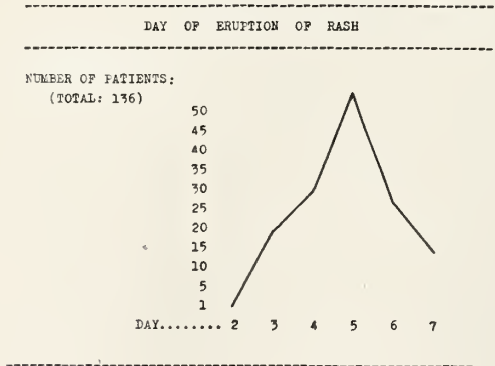
Symptoms	Number of Cases	Percentage
Chilliness	160	59.2
Pain on Eye Motion	155	57.4
Rash	136	50.4
Weakness	118	43.7
Lymphadenopathy	99	36.7
Gastro-Intestinal Symptoms	75	27.8
(Stomach distress, nausea, epigastric tenderness)		
Emesis	20	7.4
Pharyngeal Injection	86	31.8
Conjunctival Injection	63	23.3
Pulmonary Symptoms	54	20.0
(Cough, dry rales)		
Fever		
1) Typical	135	50.0
2) Fairly Typical	71	26.3
3) Atypical	64	23.7
Laboratory Observations		
White Blood Count Below 5,000 Cells	192	71.1
"Inversion" of Differential Count	58	21.5
Lymphocytosis Over 40 per cent	115	42.6

Feeling "just a little cold" during the night was not considered as chilliness.

Chills occurring in the tropics must be regarded as malaria until proved otherwise. However, the fever curve, the blood counts, and the skin rash of dengue, in addition to several thick blood smears, will generally decide the issue.

The rash was an erythematous, macular, confluent, often morbilliform eruption which appeared between the third and seventh day of illness and was observed in 50 per cent of all cases. The time of eruption has been recorded in Figure 1. The most frequent site of the rash was the right lateral chest wall; soon after, the dorsum of the feet, the back, upper abdomen, flexor surface of the arms and wrists and the legs became involved. The rash rarely persisted longer than thirty-six to forty-eight hours, when it faded out gradually. One patient developed an unusually pronounced rash; his entire body was covered with large, raised, urticaria-like blotches. Toward the end of the epidemic, a few punctate, scarlatiniform eruptions were observed and four cases were seen in which the rash was more or less replaced by purpura-like petechiae, appearing on the right lateral chest wall in one, on the flexor surface of

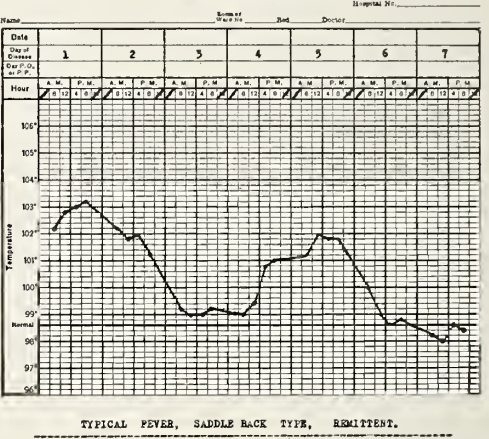
FIG. 1



the wrists in another, and on the dorsum of the feet in the two remaining cases. A thrombocyte count was done on these latter two and a thrombocytopenia of 185,000 and 139,000 platelets respectively, was found.

An initial erythematous flushing of the skin at the onset of the disease, involving the face and upper chest, has been described. This symptom was only rarely seen by us and care must be taken not to confuse such a flush with an erythema caused by the sun, since both will subside during the stay in the hospital. A definite, although faint, initial rash, showing up as a fine, reddish, macular eruption, was seen in only four cases. This eruption does not exclude the appearance of the characteristic terminal rash breaking out later in the disease.

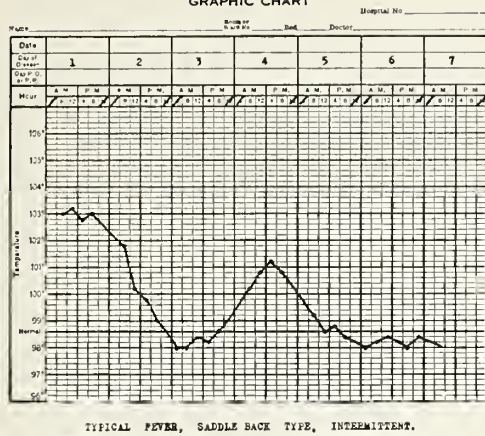
FIG. 2
GRAPHIC CHART



The symptom next in frequency was marked weakness. This was a finding of major importance, since those patients who had to be diagnosed as afflicted with a "fever of undetermined origin" did not show such a marked asthenia. Dengue, however, produces a pronounced weariness and sluggishness. Patients often remarked that they felt "all fagged out" and "without any ambition." This weakness may persist for a long time after clinical recovery has taken place and may manifest itself even in mental depression of a temporary nature. We observed two such incidents among our patients.

Lymphadenopathies have to be viewed with reserve, because enlarged inguinal lymph nodes were commonly found in otherwise healthy soldiers stationed in this area. Therefore, only cervical and postcervical glands were considered characteristic; it was noted that they occurred more frequently on the right than on the left side of the neck.

Gastro-intestinal disturbances consisted of

FIG. 3
GRAPHIC CHART

nausea, stomach distress, epigastric tenderness, and constipation. Diarrhea was present in only six patients, and it is questionable whether it was caused by the dengue fever itself or whether an etiology of a different nature was involved. Emesis, if present, occurred on the first or second day of illness, and was never severe. Anorexia, at times persisting throughout the entire course of the disease, was pronounced and a very typical symptom. The liver, although frequently tender and palpable on deep inspiration, was never grossly enlarged. The same holds true for the spleen, which was definitely enlarged in six patients, two of whom, however, had a history of previous malaria.

Pharyngeal as well as conjunctival injection of various degrees, from mild injection to marked congestion, was common. Occasionally conjunctivitis was accompanied by photophobia, soreness, burning, and watering of the eyes. This rarely lasted longer than two or three days.

Pulmonary symptoms consisted of cough with scant expectoration and sonorous and sibilant râles and rhonchi audible in one or both lungs.

Epistaxis, stressed as a symptom by Stitt-Strong² occurred in only 0.75 per cent of our cases corresponding with Kisner's figure of 0.95 per cent.

The heart never presented any pathologic findings. Hypotension, although not characteristic for dengue, can be considered additional evidence for the correctness of the diagnosis.

FEVER

The fever curve described as typical for dengue will show a more or less continuous elevation between 102 and 104 degrees Fahrenheit for the first two or three days. On the fourth day it generally drops to subfebrile levels and rises again on the fifth or sixth day. The temperature

then returns to normal in about twelve to twenty-four hours, thus forming what is known as the saddle back type of fever, considered characteristic of dengue.

According to their appearance, we divided the temperature curves into three groups: (1) The typical saddle back type of fever; (2) the fairly typical type, resembling the saddle back; and (3) the atypical type (Figures 2 to 7). Only half of our cases fell into group one; the other half was split nearly equally between groups two and three. Fevers with only a single rise of temperature were not infrequent. They have also been described by Stitt-Strong, as well as Kisner who observed single rise fevers, lasting from five to six days, in 29.5 per cent of his analysis of 318 patients. When of saddle back type, the second rise was generally lower than the first one and occurred on either the fifth or sixth day in 81.5 per cent of the 135 cases of this group. (Figure 8.)

The initial temperature rose more frequently to 102 or 103 degrees, rather than higher, and was accompanied by a pulse corresponding in rate to the degree of fever. Thereafter, a relative bradycardia was found as the rule.

In view of these figures, as well as those of Kisner which showed 33.95 per cent of cases with "no saddle back temperature," we wish to repeat that an "atypical" fever curve does not necessarily eliminate the diagnosis of dengue. It should also be remembered that temperatures charted four times a day, will present a different picture than those charted only once or twice a day, as frequently illustrated in texts. By drawing a curve connecting only one A.M. and one P.M. temperature, omitting other readings during the day, the saddle back type of fever can be demonstrated much more smoothly.

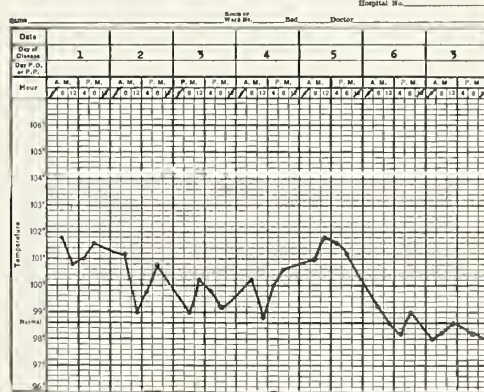
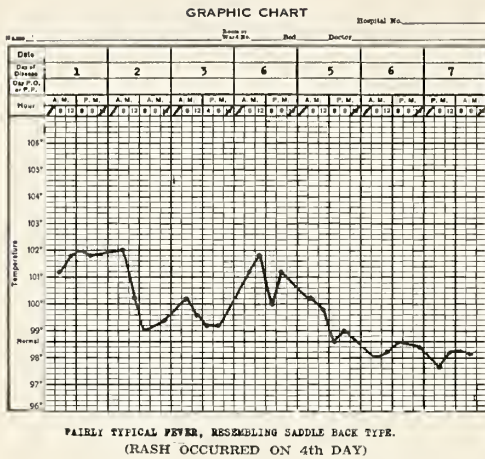
FIG. 4
GRAPHIC CHARTFAIRLY TYPICAL FEVER, RESEMBLING SADDLE BACK TYPE.
(RASH OCCURRED ON 5th DAY)

FIG. 5



LABORATORY OBSERVATIONS

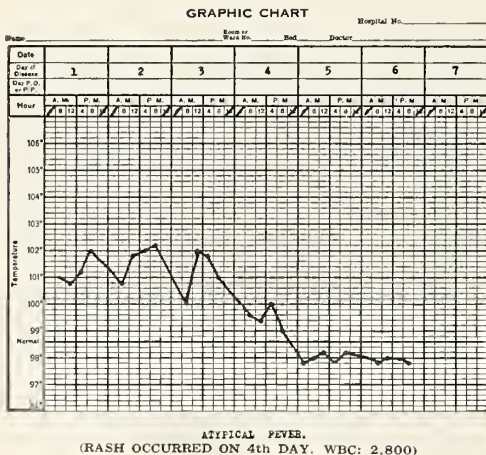
Urinalysis, erythrocyte, leukocyte, and differential counts, as well as malaria thick smears, were done routinely on all patients. Malaria smears, often two and three or more, eliminated the possibility of malaria being mistaken for dengue.

Albuminuria has been reported by Kisner in 7.5 per cent of 292 urinalyses done. However, aside from an occasional case, we did not find such pathology.

Leukocyte and differential counts proved invaluable for a proper diagnosis. A total of 71.8 per cent of all cases showed a leukopenia below 5,000 cells which is the generally accepted lowest level consistent with normalcy (Table II). In the differential counts, a decrease in the neutrophils and an increase in the lymphocytes was the rule. Almost half of the cases in this series had a lymphocytosis over 40 per cent.

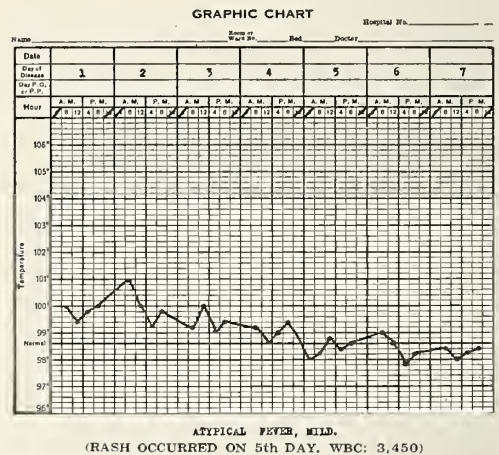
Of the differential counts, 21.5 per cent presented a complete "inversion"; that is, a lymphocyte count which was higher than the number

FIG. 6



of neutrophils. The most extreme figures obtained were a leukopenia of 1,720 white cells, and a lymphocytosis of 72 per cent with a neutrophil count of 26 per cent. Figure 8 illustrates the values of leukocyte counts found. These counts were taken on the morning following admission, which on the average corresponded to the second or third day of illness. The leukocyte count also proved to be a valuable adjunct in the further differential diagnosis with regard to malaria. To confirm this statement, 100 cases of malaria with positive blood smears were selected at random. Only 15 per cent of these showed a leukopenia below 4,000 cells, while among 100 cases of dengue this occurred in 40 per cent. In order not to overload the limited laboratory personnel, only 50 follow-up counts were done on the day of or one day prior to dis-

FIG. 7



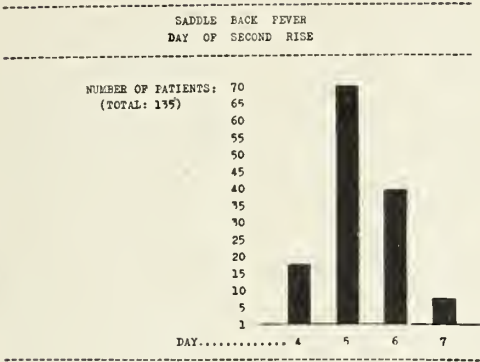
charge. All of those, with the exception of six which showed a minor decrease, presented an increase in leukocytes which amounted in 60 per cent to more than 1,000 cells. In 56 per cent, the lymphocytosis was higher in the second than in the first count, which often led to an inversion which at first did not exist. A relative lymphocytosis, it must be concluded, develops during the course of the disease.

The six cases just mentioned, which showed a leukocyte count that was higher on admission than on discharge, were all observed during the end of the epidemic. These hematologic findings are interesting and deserve further study in larger numbers.

TABLE II
Leukopenia
(270 Cases)

Below Normal (Less than 5,000 Cells).....	71.8%
Borderline Cases (5,000 to 5,500 Cells).....	15.0%
Normal Leukocyte Counts (5,500 and Above).....	13.2%

FIG. 8



CLINICAL COURSE

The course of the average case in this epidemic was as follows: The patient entered the hospital with a temperature of 102 to 103 degrees if admitted on the first or second day of illness. He stated that he became ill very suddenly, feeling chilly and aching all over. His chief complaints were severe frontal headache, pain in the eyeballs, low backache, and loss of appetite. Often he felt nauseated and perhaps, later on, vomited once or twice. A mild, dry cough was generally present. The patient felt very weak, without energy, and was perhaps somewhat drowsy. When attempting to rise up in bed, he became dizzy.

On examination, the outstanding observations were injection of the conjunctivae as well as the posterior pharyngeal wall. There was cervical lymphadenopathy. If the patient was coughing, a few dry râles could generally be heard in the lungs. Abdominal findings consisted of tenderness to palpation of the epigastric region and a tender, sometimes palpable liver. Splenic tenderness was very rare. If, in addition to these observations, a leukopenia and lymphocytosis were reported by the laboratory, not much doubt was left as to the diagnosis.

On the third or fourth day of illness the patient thought he had recovered. The following, fourth or fifth day, however, he again felt as sick as on admission. The temperature which had dropped to subfebrile levels the day before, rose again and generalized muscular aching recurred. A red, macular rash appeared, beginning on the chest wall or the dorsum of the feet. This second phase of illness rarely lasted longer than twenty-four to forty-eight hours and terminated abruptly, leaving but a marked asthenia.

Crisis with diarrhea and profuse perspiration has been described, but it was observed in only one case during the epidemic. It was the aforementioned patient who presented such a severe rash.

PREVENTION

Since dengue is transmitted by mosquitoes, all antimosquito measures known for the prophylaxis of malaria are indicated. Although they are well known to most medical officers, these measures are important enough to bear repeating in the form of a short summary. They consist chiefly of:

1. Proper clothing, exposing as little body surface as possible. This precaution must be observed especially between the hours of sundown to sunrise.
2. Use of Army issue mosquito sprays (Freon bomb) and repellent lotions.
3. Proper drainage of camp area and prevention of accumulation of water which may form breeding places for the larvae. (Special attention to be paid to wheelruts, empty tin cans, etc.)
4. Regular oiling of surface of stagnant water (pools, puddles, etc.)
5. Use of mosquito net at night.

At this hospital all patients entering with a fever of which the etiology was not immediately obvious were kept under the net at all times during the first three days of illness.

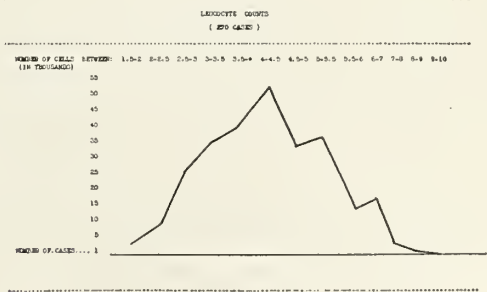
Since completion of this paper, Sabin and Schlesinger³ demonstrated that dengue virus can be propagated by intracerebral inoculation of mice and that such virus produced dengue in human volunteers. The authors stated tests with multiple passage material indicated that modification of the type of disease produced, was so marked that it could be used as a vaccine for the production of immunity against dengue.

It is believed that these investigations may become of prime importance for the prevention of dengue, a disease which was a problem to the Army in terms of man-hours lost.

TREATMENT

For this, as any other virus disease, no specific treatment is known. Pain could be effectively alleviated with acetylsalicylic acid with, if necessary, the addition of from one-half to one grain of codeine.

FIG. 9



Ice caps, as well as cold eye compresses of either plain ice water or boric acid solution, were found agreeable to the patient. Laxatives had to be used with reserve, since we found, confirming Kisner's observation, that response to cathartics is frequently exaggerated in dengue. Patients with pronounced weakness received multi-vitamin tablets. Insomnia required sedation, especially during the first two nights.

With the exception of a few patients suffering from a marked asthenia after clinical recovery, we were able to discharge all dengue patients on the seventh or rarely eighth day of illness.

SUMMARY

Analysis was made of 270 cases of dengue occurring during an epidemic among soldiers stationed in New Guinea.

Symptoms were discussed and tabulated in order of frequency.

The fever curves were classified as (1) typical, of saddle back type, occurring in 50 per cent; (2) fairly typical, resembling saddle back type, occurring in 26.3 per cent; and (3) atypical, occurring in 23.7 per cent of the cases.

Outstanding among the laboratory observations were leukopenia and relative lymphocytosis.

The clinical course of an average case was described.

No specific treatment is known for this disease, but mosquito control is essential for its prevention.

Sincere thanks are extended to Major Joseph M. Stein, Commanding, and Captain Clyde H. Kelchner, Chief of Medical Service, for their cooperation. I am indebted to Colonel C. G. Blitch, my present Commanding Officer, for his aid in publishing this paper.

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ROLE OF THE SANATORIUM IN THE POSTWAR PERIOD

WILLIAM M. SPEAR, M.D., Oakdale

Much has been accomplished during the past forty years in our fight against tuberculosis, but we are still far from the objective of having this dread disease under control. Do you know that one of your fellow American citizens dies of tuberculosis every nine minutes? Annually 60,000 persons die from tuberculosis and, according to

conservative figures, there are approximately 500,000 persons sick from tuberculosis in the United States at the present time. In 1900 the death rate from tuberculosis was around 200 per 100,000. Throughout the years the rate has declined until at present there are approximately 44 deaths per 100,000. Our state has one of the lowest death rates, 17 per 100,000, or nearly 400 deaths from tuberculosis in 1944. One may estimate the number of tuberculous patients in his community by multiplying by eight the number of annual deaths from tuberculosis. Therefore, in Iowa today we have over 3,000 cases of tuberculosis, most of them undiagnosed due to lack of symptoms. It is the job of the medical profession to find the unknown cases and see that these individuals receive immediate treatment.

In the last few years public interest has awakened to the tuberculosis problem. Recent technical developments make it possible to find cases cheaply and to find them early. The war has threatened the stability of our civilization with consequent lowering of resistance to the disease and has directed renewed attention to tuberculosis control. The stage is set, then, for a coordinated attack with the objective of eradicating, not merely controlling, tuberculosis.

Long wars accompanied by privation always have resulted in appalling increases in tuberculosis. It remained for World War I to reveal tuberculosis as a major war problem. All European nations, both neutral and combatant, experienced a rise in tuberculosis mortality varying from 10 to 20 per cent. History has repeated itself in this war and with a ferocity inspired by the policy of the Germans to exterminate large groups in the conquered nations by slow death. It is known that tuberculosis is raging with epidemic force in the recently liberated countries of Europe today. Even Great Britain has experienced a 13 per cent increase in tuberculosis mortality since the war began. Crowding, fatigue, malnutrition, increased exposure, mass migrations of population—all these favor the spread of tuberculosis in wartime. Although we cannot yet point to a nationwide increase in tuberculosis mortality in the United States, indications in certain parts of the country are that such a rise will soon become apparent.

Sanatoria and hospitals for the care of tuberculous patients have developed into splendid well-adapted machines for dispensing such assistance. The sanatorium is not, in the strict sense of the word, a hospital; certainly not a hospital as conceived by one who has not had intimate contact with such special institutions. It is a school of instruction, a place where intensive education is available to wage battle against tuberculosis, or

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Prepared for presentation before the Ninety-Fourth Annual Session, Iowa State Medical Society, Des Moines, April 18 and 19, 1945, canceled upon request of the Office of Defense Transportation.

perhaps it would be termed a Reform School of Health, for certainly any individual with tuberculosis must of necessity reform or alter his mode of living if he is to win his way back to health. Passive obedience from the patient is necessary in assisting him to abstain from that which is harmful, without which assistance no patient can easily adhere to the daily routine with its imposed necessary restrictions and the monotonous boredom of taking the cure.

Primarily the duty of the sanatorium is to afford a place for the treatment and the healing, if that be possible, of a person affected with tuberculosis. To the individual patient, it goes without saying that his own return to health seems the most important function of the sanatorium and that is true in his particular case. But to look at the situation more broadly, the benefits, which may profit society in general, constitute a much more important function than the curing of the individual patient. Then, the first principles of health control concern the actual care of the sick; after that, efforts for the prevention of disease are developed. Early diagnosis is necessary if we wish to increase the number of cures. It is surprising the number of advanced cases admitted to our institution; we see a few moderately advanced, and still fewer minimal cases. Further education of the people is necessary so that they may recognize the early symptoms of tuberculosis and not wait to seek treatment when their disease is advanced. If the primary duty of sanatoria is curing tuberculosis, the emphasis should be laid on getting the patient under treatment as soon as possible. Let us remember the slogan, "Make the Sanatorium the First Resort, Rather Than the Last Resort in Tuberculosis."

The sanatorium is a place of specialized therapy. Competent medical service is a great factor in overcoming the disease. A physician, well trained in tuberculosis work, gives very useful information that might never be learned except by bitter experience. Under daily observation in sanatoria, strict records are kept showing progress that could not be detected otherwise. Periodic physical examinations are necessary at frequent intervals with the resultant constant check, all of which are difficult to obtain at home and are rarely, if ever, accomplished in any other place than a sanatorium, where, if properly equipped, there are usual measures of surgical, medical, and nursing service such as are needed in controlling hemorrhages, and in other emergencies. Also, in the sanatorium there can be secured x-ray and fluoroscopic examination and the surgical measures of collapse therapy such as artificial pneumothorax, pneumonolysis, pneumoperitoneum, transthoracic

cavity aspiration, phrenemphraxis and thoracoplasty.

Rest, both mental and physical, is a prerequisite in the cure of tuberculosis. No tuberculous individual ever became well who insisted on having his own way, unless that way meant rest and quiet. One of the great values of sanatorium treatment is environment. There, everyone is carrying out the same routine life. There, you are in a happy world all working toward the same end—physical well-being—HEALTH.

The educational factor of the sanatorium to the public is becoming quite rightly its greatest function. The sanatorium is a school of instruction where the subjects of education, isolation, and sanitation are taught. In dealing with tuberculosis, it is well to remember that it is as important to treat the patient as the disease, and to include in any course of treatment instruction of the well-meaning friends and relatives, who in many instances create a trying problem.

Education of the tuberculous patients in sanatoria, to insure premanency of recovery, occupies a peculiar and only recently recognized position in the treatment. For years in the treatment of pulmonary tuberculosis we have spoken of the "therapeutic triad" of rest, good food, and fresh air. The ultimate result depends directly upon the patient's application of the knowledge he has acquired about what he should and should not do. If this statement is correct, then the education of the patient becomes of importance equal to that of rest, food, and air. Education of the patient has as its aim the restoration of that individual to active and useful participation in the social life of the community in which he lives. More simply, we must educate the patient not only to get well, but what is vastly more difficult, to KEEP WELL. It requires three or four years or longer of curing and careful living to bring about a permanent arrest of the disease, and it is well for the patient to know this. For years we have recognized that time alone tells whether an arrest of the disease is only apparent or permanent. Most patients have to return to work long before their arrest is permanent. Again, the patient should be educated about his future work. Stress has been laid on the fact that among certain people the sanatorium weakens the desire for work. One is convinced that these persons never had any great desire for work and are simply indulging an innate tendency. It is well to tell the patient that while he is under treatment he is really going to college, a college of health where his daily tasks are allotted to him. He must learn them well, for after a time he will leave this sheltered place, where all is made easy for him, and go out into the world where he must

face, in regard to his health, the same problem that the student in a university faces. Then, while he may seek aid from his adviser and physician, he alone must solve his many problems by the knowledge he has acquired. If his education has been insufficient, he relapses; and discouraged he seeks somewhere the treatment and knowledge he requires. However, if it has proved sufficient, he passes on to ultimate permanent arrest and a useful life.

The next function of an institution is isolation. Not only should the patient be in a sanatorium on account of many advantages to himself, but it is practically impossible, in the majority of homes, to eliminate the danger of infecting other members of the family. We shall never be able to combat tuberculosis successfully until we separate the tuberculous patients from among the healthy and thus strike at the very source of the spread. Children are easily susceptible to tuberculous infection. If repeated massive doses are constantly received, the child may readily develop the disease. It is believed that most infections are contracted in early life and in later life develop into tuberculous disease. Segregation of open cases of tuberculosis in sanatoria will prevent this. There is great danger of our institutions becoming overcrowded with custodial cases. At the present time we have an ever increasing number of these—elderly men and women who have chronic cases of tuberculosis with persistently positive sputum, and who are without means or home. One feels that there is a great need for a convalescent camp where little nursing care would be necessary, but where proper medical supervision could be obtained. Such a camp could be operated at much less expense and their beds in the sanatorium filled by younger patients suitable for collapse treatment.

Recreation is always an important sanatorium problem. Patients in a tuberculosis sanatorium must have some form of recreation. Nothing so lowers the morale of the tuberculous sick as the deadly monotony of unvarying daily routine, unrelieved by diversion of any kind. To offset this tendency, one of the most potent factors is the sanatorium library. An adequate assortment of good books is an asset to the equipment of any institution, and as a general rule sick patients choose reading in preference to any other form of amusement. Group entertainment provides the very best kind of amusement, if it is properly handled. In this category may be classed moving pictures, entertainments, parties, musicals, and lectures.

Occupational therapy is coming more and more to occupy an important place in sanatorium treat-

ment. To be effective, this form of therapy must adapt itself to each individual. There is another condition to be fulfilled which applies not to the method but to the patient. The patient must be in complete cooperation with the doctor's orders and must understand their meaning.

The difficulties which many patients encounter in making the transition from the cure to a job in normal industry has demonstrated the fact that some effort toward rehabilitation is imperative. One believes that if the rehabilitation of the patient is started in the sanatorium, the mental and physical hazards of the patient's return to society will be reduced to a minimum. Within the last ten to fifteen years numerous attempts at solving the problem have been made. These range from occupational therapy work in the sanatorium to hardening camps and ideal working conditions with medical supervision. In the aggregate, these measures have been sufficiently successful to prove that from the medical viewpoint there is a definite place in industry for the ex-patient. How best to prepare the patient, while in the sanatorium, for his transition from the cure to industry within the limits of his available capital, is the present problem. Because an ex-patient's activities are curtailed by his disease, extra thought and understanding must be used by the worker in planning his future occupation. Rehabilitation would prevent many future cases of breakdown after apparent recovery. Surely the need of vocational establishment after sanatorium recovery will ultimately be understood and adequately financed.

When one takes into consideration all of the foregoing factors, we have the Rôle of the Sanatorium in the Postwar Period as a challenge to us all. These facts represent the basic influences for success in the eradication of tuberculosis:

SURGICAL TREATMENT OF CARCINOMA OF THE RECTUM

EDWARD L. BESSER, M.D., FRANK R. PETERSON, M.D., and JOHN W. DULIN, M.D., Iowa City

The purpose of this paper is to present a statistical study of the patients admitted to the University of Iowa Hospitals because of carcinoma of the rectum. The completed study includes those patients who were admitted during the seven year period of January 1, 1937, to January 1, 1944. In the operable cases, the procedure was in almost all instances the Miles one stage abdominal-perineal resection. Prior to 1937, the operation of choice in this institution was the Kraske posterior resection. During 1935 and

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1936, there were several two stage and several one stage abdominal-perineal resections. Not included in this report are those cases of carcinoma of the low sigmoid in which the distal stump of sigmoid was inverted and a permanent colostomy established. These are to be included in a subsequent study of carcinoma of the colon.

Number of Patients, Age, Duration of Symptoms, and Operability: There were 348 patients on whom the diagnosis of carcinoma of the rectum was made. It is not the policy of the department to make biopsies of these tumors except in the occasional atypical case. Twenty-nine patients refused operation. One hundred and thirty-nine cases were found operable. The operability was thus 43 per cent. The average age of all patients was sixty years, while that of those with operable lesions was fifty-eight years. The age range was from thirty-two to eighty-three. The average length of time between the onset of symptoms and the first consultation with a doctor was 6.5 months. (This data was available on 151 histories.) The average length of time between onset of symptoms and admission to the University Hospitals was 11 months. (This data was available on 315 histories.)

Type of Operation, Mortality: A one stage abdominal-perineal resection was done in 135 of the 139 operable cases. Since we are primarily interested in the results of the one stage procedure and since all the complications and fatalities occurred in the 135 one stage procedures, the percentages given in the tables are based on the 135 one stage procedures, and not the 139 combined one stage and other procedures. Thirty patients died in the hospital following the one stage procedure, producing an operative mortality of 22.2 per cent. In the first four year period of this study, the operative mortality was 31.5 per cent for 63 cases. During the last three years, 64 patients underwent surgery with a mortality of 10.8 per cent. Twenty-five patients (7.2 per cent) had had hemorrhoidectomies or previous minor rectal operations for the symptoms which eventually led to the diagnosis of cancer of the rectum.

Preoperative Care, Operative Procedure, Postoperative Care: Routine laboratory examinations were carried out and particular attention was paid to the serum proteins, the hemoglobin, and the red blood cell count. An indwelling catheter was routinely placed in the bladder preceding the operation.

If the patient was obstructed, an attempt was made to decompress the colon by inserting a tube past the carcinoma and following this with enemata. If this could not be done, a transverse colostomy or a sigmoidostomy was carried out. This

was considered necessary in only one case in this series.

If the patient was not obstructed, he was placed on a liquid diet and given mineral oil three times a day. It was believed advisable to keep the patient on this regime at least six days. In certain cases where operation was done without this preparation, the bowel was often found full of feces. Enemas "until clear" were given the night before operation. It was desirable to give these the night before operation rather than the morning of operation in order to have the enema well expelled before operation. In many instances a Miller-Abbott tube was passed prior to operation. Considerable technical difficulties were encountered with these tubes, and for the past three years only the Levine tube with Wangenstein suction has been used. This was instituted the night before operation. It was believed that having the entire intestinal tract and rectum well cleaned out was a necessity. In instances when this was not attained, the complications of accidental perforation and technical difficulties were often distressing.

As previously noted, the one stage procedure was used in practically all of the cases in this study. A left transrectus or paramedian incision was used. In most instances, the peritoneal pelvic floor was closed with a running suture of chromic catgut. The posterior rectus sheath was most commonly closed with a running suture of doubled number 2 chromic catgut, and the anterior sheath closed with catgut or wire. A discussion of the value of wire will be presented later. Usually the colostomy was brought out through the rectus incision but sometimes through a left McBurney incision. It is the writers' impression that wound complications were fewer when the latter procedure was used, but the colostomy can be more easily cared for by the patient if it is brought out through the rectus wound. The perineal wound was packed by inserting two or three rubber gloves which were loosely filled with gauze sponges. The use of rubber gloves filled with sponges as a pack in the perineal wound serves two functions. First, they support the bladder and the pelvic floor during the early healing period, and second, they act as a pressure dressing for hemostasis. If early infection develops and the gloves seem to obstruct drainage, some of the sponges may be removed without removing an entire glove and thus decrease the bulk. The gloves may be removed without pain or discomfort to the patient. Previously other types of packs had been used and in some cases primary closure had been attempted.

Transfusions were routinely given. Inhalation

anesthesia was most frequently used. The present most popular agent is cyclopropane with intubation or with curare.

The usual postoperative procedures to prevent atelectasis were followed. The colostomy was opened most frequently at forty-eight hours, although often at twenty-four hours. Wangenstein suction was discontinued as soon as there was peristalsis, usually about seventy-two hours. Perineal packs (in the form of rubber gloves filled with sponges) were removed from the fifth to the eighth day. Thereafter the perineal wound was washed out with saline or Dakin's solution. The patient was usually allowed up the tenth to twelfth day and then sitz baths were begun. The indwelling catheter was usually removed the seventh or eighth day. The patient was instructed in the daily use of an enema, instructed in a "colostomy diet," and most patients wore only a piece of gauze as a protection over the colostomy, and this was supported by a belt. Colostomy bags were rarely used. The patient without complications was discharged in sixteen to eighteen days after operation. The perineal wound usually took from six weeks to three months to heal, although occasionally a sinus remained for six months or longer.

Fatalities: The causes of the fatalities are given in Table I. In those cases in which several complications occurred, the complication which was thought to be the primary cause of death is listed.

TABLE I	
Peritonitis	9
Pneumonia	4
Intestinal obstruction	3
Shock	3
Anesthesia	2
Urinary tract infection	2
Cardiac decompensation	2
Cerebral hemorrhage	1
Severe wound infection	1
Emboli	1
Unknown (Emboli? Cardiac?)	2
Total.....	30

Complications: The complications and their frequency are shown in Table II. Wound infection and shock were most common complications. In most instances, however, shock was not serious. In the earlier cases, fluids were frequently not begun until after the patients left the operating room or until the perineal portion of the operation was begun. It has often been noted that the shock occurs during the perineal excision. It is felt that this may be partly the result of certain reflexes set up when delivering the rectum, but primarily it is due to blood loss which occurs at that time in a patient who has undergone a major procedure. Shock accounted for the death of three patients. In two this was due to uncontrollable hemorrhage encountered during the perineal excision.

TABLE II		
Complications	No. of Cases	Percentage
Shock	30	21.8
Wound infection	29	21.0
Pneumonia	13	9.3
Severe urinary tract infection.....	13	9.3
Peritonitis	9	6.1
Intestinal obstruction necessitating operation or causing death.....	7	5.0
Evisceration	7	5.0
Thrombophlebitis	6	4.3
Emboli—nonfatal	3	2.1
Emboli—fatal	2	1.4
Cardiac failure	2	1.4
Cerebral hemorrhage	1	.7
Colostomy complications	14	9.1

Comparison between cases in which catgut alone and catgut and wire were used for closure: The most significant change in our routine for the management of these cases has been in the suture material for closure of the abdomen and more frequent, earlier and larger blood transfusions. During the years 1937, 1938, and 1939, most of the wounds were closed with catgut. Running chromic number 2 was used for the peritoneum and posterior rectus sheath and the same material, either running or interrupted, was used for the anterior rectus sheath. Stay sutures of wire or braided silk or silkworm gut were frequently used. In seventeen cases closure was performed with number 18 wire through all layers. In 1940, the procedure of using number 32 stainless steel wire for the anterior rectus sheath was instituted. The peritoneum and posterior rectus sheath were closed with running catgut chromic number 2. About half the cases that year were closed by this method. During the years 1941, 1942, and 1943, the wounds in all cases were closed with this technic. After changing from catgut to wire, the incidence of wound infection was reduced from 29 per cent to 15 per cent and eviscerations were reduced from 9 per cent to 1.5 per cent. This is shown in Table III.

TABLE III			
Wound Complications with Type of Closure (Excluding 17 Cases in which Closure was by Non-Standard Methods)			
	1937, 1938, 1939 Catgut 54 Cases	1941, 1942, 1943 Catgut and Wire 64 Cases	
Wound infection	16 (29.6%)	10 (15.6%)	
Evisceration	5 (9.2%)	1 (1.5%)	
Mortality	17 (29.0%)	7 (10.9%)	

Survivals, "Five Year Cures": There were 109 patients who survived the procedure. Follow-up studies were carried out by the Tumor Clinic of the University Hospitals. Follow-ups were available and complete on all but two cases. The last follow-up was made during November and December, 1943. At that time there were 63 patients living (58 per cent), 35 had apparently died of progression of the disease and 9 had died from other causes. There were 37 patients who survived the operation in the period from 1937 to 1939, and these may be studied for "five year cures." Fifteen (40 per cent) are living. This data is shown in Table IV.

TABLE IV

Survivals Curability	
Number of surgical patients	139
Operative fatalities	30
Survived operation	109
Living (11 months to 7 years)	63 (58%)
Died of progression of disease	35
Died of other diseases	9
Follow-up incomplete	2
Cases Studied for 5 Year Cures (i. e. Operated 1937-39)	
Survived operation	37
Living	15 (40%)
Died of progression of disease	17
Died of other diseases	3
Follow-up incomplete	1

Cases in Which Resection Was Done in Spite of Invasion of Adjacent Organs: The results have been discouraging in this small group. In eight instances the tumor had invaded adjacent organs and yet resection was carried out. Only one of these patients was living at the time of the survey. He was alive eighteen months after operation. Two died of recurrence and four were postoperative deaths. The following organs were involved: prostate, four cases; seminal vesicles, two cases; uterus, one case; and the urogenital triangle, one case.

SUMMARY

1. A statistical study of the results of operations for carcinoma of the rectum at the University of Iowa Hospitals from 1937 to 1944 shows an operability of 43 per cent and a hospital mortality rate of 22.4 per cent.
2. During the last three years 64 single stage abdominal perineal resections were performed with a mortality of 10.8 per cent. The most frequent complications were shock and wound infection. A marked reduction in the incidence of wound infection and evisceration occurred when number 32 stainless steel wire was introduced as suture material for closure in place of catgut. There were 58 per cent of the patients who survived the procedure living from eleven months to seven years. Thirty-seven survivals were followed for more than five years and 40 per cent of these were living at the time of this study.
3. Rubber gloves filled with sponges have been found to be a simple and effective method of packing the perineal wound and supporting the bladder.

CLINICOPATHOLOGIC CONFERENCE

HYPERTENSIVE HEART DISEASE

Report of a Case With Congestive Failure Showing Morphologic Alterations of the Adipose Tissue Following the Prolonged Use of a Mercurial Diuretic

MAJOR JOSEPH E. FLYNN, M.C., A.U.S.

CASE REPORT

On admission to the hospital the patient, a white male forty-six years of age, was irrational. His wife stated that he had been hospitalized in 1941 for high blood pressure, and at that time he was told there were no signs of heart or kidney trouble. After he was discharged from the hospital he twice passed a civil service examination. He had few or no symptoms until July 15, 1944, when he developed an upper respiratory infection. Following the upper respiratory infection he had shortness of breath, left chest pain, severe headache, nasal hemorrhages, and swelling of the ankles. Urinalysis revealed an albuminuria. His blood pressure was 230 systolic (diastolic not known). The pulse was rapid and regular. A local physician found the patient's heart to be enlarged and stated that he had heart trouble. At 1:30 p. m. on August 11, 1944, his wife noted that his speech was slurred, and at 5:00 p. m. the same day he began to rub his head and then manifested wild purposeless movements alternating with periods of relative quiescence. It was frequently necessary to restrain him. Sometimes four men were required to keep the patient in bed. He was brought to the hospital on August 12.

Physical Examination: On admission the patient manifested frequent involuntary to-and-fro movements of the head and arms. The pupils were constricted. The blood pressure was 230/100. There was a blowing systolic murmur at the cardiac apex. The cardiac rhythm was regular. The heart was enlarged.

Laboratory Examination: Urinalysis revealed a 3+ albumin, a trace of sugar, a specific gravity of 1.017, and 10 to 12 pus cells per high power field. The blood nonprotein nitrogen was 39 milligrams per cent. The blood urea nitrogen was 20 milligrams per cent. The blood creatinine was 1.6 milligrams per cent. The blood sugar was 127 milligrams per cent. The blood chlorides were 480

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The Sioux Valley Medical Society
will meet January 30 and 31,
1946, at the Martin Hotel
in Sioux City

milligrams per cent. The red blood cell count was 4,400,000. The white blood cell count was 11,200. The hemoglobin was 11.5 grams. On August 13 the blood nonprotein nitrogen was 76 milligrams per cent. On August 15 the blood bromide level was 40 milligrams per cent. The Kahn test was positive, as was the Kolmer. On August 16 the blood nonprotein nitrogen was 120 milligrams per cent; on August 18 it was 95 milligrams per cent. On the same day the spinal fluid was examined. The Wassermann reaction was negative. The sugar was reported as 64 milligrams per cent. The gold curve was 1223330000. On August 22 an Addis count was done. There was a marked increase in the number of casts. The casts were of the hyaline type. On September 8 the serum proteins were 5.35 grams per cent. The albumin was 2.85 grams per cent. The blood nonprotein nitrogen was 41 milligrams per cent. On September 15

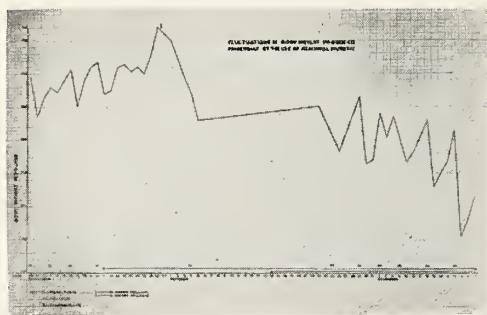


Fig. 1. Chart showing fluctuation in body weight produced principally by the use of a mercurial diuretic. The abscissa refers to the days. The ordinate refers to the body weight in pounds. From September 1944 until January 1945 the patient received a total of 23 intravenous mercupurin injections of 2 cc. each.

the urea clearance was reported as 34 per cent of normal function. On October 24 the blood nonprotein nitrogen was 29 milligrams per cent. The total proteins were 5.88 grams per cent. On November 10 the red blood count was 2,700,000. The hemoglobin was 8 grams. On January 16, 1945, the blood nonprotein nitrogen was 36 milligrams per cent. On January 30 the blood nonprotein nitrogen was 67 milligrams per cent. The serum proteins were 6.8 grams per cent. Electrocardiographic studies showed the T-wave negative in leads 1, 2, 3 and 4, and left axis deviation. Electrocardiograms taken at later dates revealed digitalis effect. A roentgenogram of the chest was reported as indicating marked left ventricular enlargement.

Course: Shortly after admission the patient began to improve and on August 17, 1944, he was mentally clear. During September the blood pressure ranged between 210 and 225 systolic and 130 to 150 diastolic. On October 3 moist râles were

heard in the chest. Signs of ascites were also present. On October 6 the patient again became irrational, presenting much the same clinical picture that was observed on admission. Within three days the patient was again mentally clear. On October 11 there were marked ascites and bilateral hydrothorax. The patient was digitalized and mercurial diuretics were given. During the months of October, November, December, and January the patient had frequent episodes of edema. The edema was controlled only by the administration of mercurial diuretics. On January 15, 1945, the patient again became irrational. On January 22 he had auditory and visual hallucinations. On February 8 the patient had severe convulsions, bit his tongue, scratched his face. Shortly afterward there was an elevation in temperature. There were numerous râles in both lung bases. On February 9 there were Cheyne-Stokes respirations. He expired at 6:30 p. m. Treatment had consisted in the management of his recurrent congestive failure with limited fluids, salt-free diet, digitalis, ammonium chloride, mercurial diuretics, sedation, and symptomatic remedies. In all the patient received a total of 23 intravenous mercupurin injections of 2 cubic centimeters each.

Final Clinical Diagnoses:

1. Arterial hypertension.
2. Hypertensive heart disease.
 - a. Cardiac hypertrophy.
 - b. Coronary sclerosis.
 - c. Hypertensive retinitis.
 - d. Hypertensive encephalopathy.
3. Syphilis.
4. Anemia.
5. Bronchial pneumonia.

NECROPSY ABSTRACT

At autopsy the heart was enlarged, weighing 750 grams. There were mural thrombi of the left ventricle and the right auricular appendage. Some of the thebesian veins contained thrombi. There was a generalized arteriosclerosis and arteriosclerosis as well as the morphologic alterations usually found in congestive heart failure. The brain showed moderate edema. Microscopically, practically all of the adipose tissue, even that originally formed in the primitive mesenchyma, showed changes of interest. Many of the cells had lost their lipoid content and presented an embryonic appearance.

Final Anatomic Diagnoses:

1. Hypertrophy and dilatation, cardiac, marked.
2. Mural thrombus, right auricular appendage.
3. Mural thrombus, left ventricle.
4. Thromboses, thebesian veins, left ventricle.

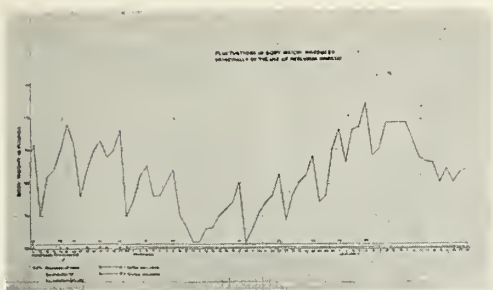


Fig. 2. Continuation of Figure 1.

5. Occlusions, pulmonary vessels, thrombotic emboli secondary to mural thrombus right auricular appendage.

6. Infarcts, pulmonary and spleen.

7. Pneumonia, lobular, bilateral, terminal.

8. Congestion, chronic passive, liver, spleen and lungs, marked.

9. Nephrosclerosis, bilateral, moderate.

10. Thromboses, blood vessels of periadrenal adipose tissues.

11. Metamorphosis, fatty, slight.

12. Cyst, parathyroid, small.

13. Hyperplasia, parathyroids, slight.

14. Syphilis, latent (serologic).

15. Ascites, slight.

16. Hydrothorax, bilateral.

17. Edema, peripheral, slight.

18. Hydropericardium, slight.

19. Ulcer, peptic, first portion duodenum.

20. Arteriosclerosis, moderate to marked.

21. Arteriolosclerosis, generalized, moderate to marked.

22. Osteo-arthritis, right knee joint, moderate.

COMMENT

This is a case of hypertensive heart disease with recurring encephalopathy and intractable congestive failure. The hypertension was first discovered in 1941. The patient remained symptom-free until July, 1944, when there appeared signs of congestive heart failure, precipitated by an upper respiratory infection. Approximately one month later the patient was admitted to the hospital with hypertensive encephalopathy. A few days after admission the patient became rational. His further hospital course was characterized by signs of both left and right ventricular failure and recurrence of the hypertensive encephalopathy. The usual treatment for congestive heart failure was given. The peripheral edema was controlled only by the frequent administration of mercurpurin. Aside from the usual morphologic alterations seen in congestive heart failure, the most interesting finding was the embryonic appearance of much of the adipose tissue. These changes were un-

doubtedly largely secondary to the frequent use of mercurpurin. It is well known by colloidal chemists that water in tissue exists in two states—a liquid state and a bound state. The liquid water acts as a dispersion medium for gels, sols, electrolytes and other chemical constituents in tissues, whereas the bound water forms an integral part of the chemical components of tissues. Although not well appreciated, it is a fact that adipose tissue contains as much—or even more—bound water as it does fat.¹ It would seem that under the extreme stimulus of a mercurial diuretic not only is the increased interstitial fluid mobilized, but the adipose cells likewise yield their bound water. It is the loss of bound water that alters the appearance of adipose tissue since the lipid material must be broken down for the release of water to occur. Apparently such a breakdown of adipose tissue is not associated with any deleterious effects. After its release the bound water acts as liquid water and is eliminated by the kidneys.

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ANNOUNCEMENT OF VAN METER PRIZE AWARD

The American Association for the Study of Goiter again offers the Van Meter Prize Award of three hundred dollars and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The award will be made at the annual meeting of the Association which will be held in Chicago in April or May 1946, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical or research investigations; should not exceed three thousand words in length; must be presented in English; and a typewritten, double-spaced copy sent to the Corresponding Secretary, Dr. T. C. Davison, 207 Doctors Building, Atlanta 3, Georgia, not later than February 20, 1946. The Committee which will review the manuscripts is composed of men well qualified to judge the merits of the competing essays.

A place will be reserved on the program of the annual meeting for presentation of the prize award essay by the author if it is possible for him to attend. The essay will be published in the annual *Proceedings of the Association*. This will not prevent its further publication, however, in any *Journal* selected by the author.

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STATE DEPARTMENT OF HEALTH

Walter L. Biering

War Continues Against Insidious Foe--Tuberculosis

LEON H. FLANCHER, M.D., M. P. H., Director
Division of Tuberculosis

We have won the war against foes overseas by concentrated and united effort of the entire nation. However, the victory is still to be won against a more insidious foe, tuberculosis. While some advancement has been made in spite of the handicap of lack of personnel and equipment, we must go forth with increased effort and speed to find and cure new cases of this disease that are continually occurring in the civilian population. Many men and women will be returning from the armed services who contracted tuberculosis due to stress and strain of warfare or to privations of imprisonment, and to contact with the disease in countries where the war was fought. There are also tuberculosis patients who engaged in strenuous occupation through the lure of higher wages, thus exposing fellow workers and jeopardizing their own chance for cure.

With the return to private practice of many physicians who have been in the armed services, with the securing of additional personnel, new and improved equipment, it is planned to carry on a more extensive program.

Three new x-ray units have been purchased through state and federal funds and with the aid of the Iowa Tuberculosis Association. All of these units are of the 35 millimeter type, equipped so that large 14x17 x-ray films can also be taken. Delivery of this equipment is expected within the next few months. Two of the units are of mobile type, mounted on trailer trucks for travel throughout the state; the third will be a portable unit which can be moved from truck to building and will be used for the regular county x-ray conferences. All of this equipment is of the latest, most improved type. Each unit will have its own generator to supply needed power; this will greatly facilitate the work in that it will allow the taking of roentgenograms where power was not available in the past.

It is desired to thank attending physicians for cooperation in the prompt reporting of cases of tuberculosis in their practice, and for lending sup-

port to the program. This cooperative effort has helped us to plan activities and also to assist the physician where necessary in checking tuberculosis contacts. Our records now present a fairly accurate picture of the number of known cases of tuberculosis in each county. We trust the physicians will continue this good record in the future.

Investigation of pulmonary calcification in relation to tuberculosis in Iowa, has been carried on during the past three years under direction of the United States Public Health Service, in conjunction with the Division of Tuberculosis and the Iowa Tuberculosis Association. This work is going forward satisfactorily and it may be possible to make a progress report on this condition to physicians of the state during the coming year.

Annually at this time a colorful little emblem known as the Christmas Seal is sent throughout the country. The proceeds from its sale are used to fight tuberculosis. By purchasing and using this seal during the Holiday Season, all of us can play an added part in stamping out this disease.

Our staff extends to all a very Merry Christmas and a Happy New Year.

PREVALENCE OF DISEASE

Disease	Oct. '45	Sept. '45	Oct. '44	Most Cases Reported From
Diphtheria	16	5	9	Clinton, Scott, Chickasaw
Scarlet Fever	162	72	137	Polk, Dubuque, Pocahontas
Typhoid Fever	1	4	1	Linn
Smallpox	0	0	0	
Measles	10	5	10	Story, Woodbury, Bremer
Whooping Cough	11	19	42	Des Moines, Bremer, Dubuque
Brucellosis	17	16	19	Polk, Black Hawk, Dubuque
Chickenpox	79	23	51	Dallas, Des Moines, Bremer
German Measles	0	4	2	
Influenza	3	0	0	Grundy, Polk
Malaria	33	29	31	Clinton, Polk, Franklin
Meningococcus				
Meningitis	3	4	8	Howard, Polk, Tama
Mumps	53	33	78	Washington, Story, Woodbury
Pneumonia	10	7	5	Polk, Black Hawk, Clinton
Poliomyelitis	101	92	60	Polk, Kossuth, Hancock
Tuberculosis	48	73	66	For the State
Gonorrhea	264	232	233	For the State
Syphilis	105	133	118	For the State

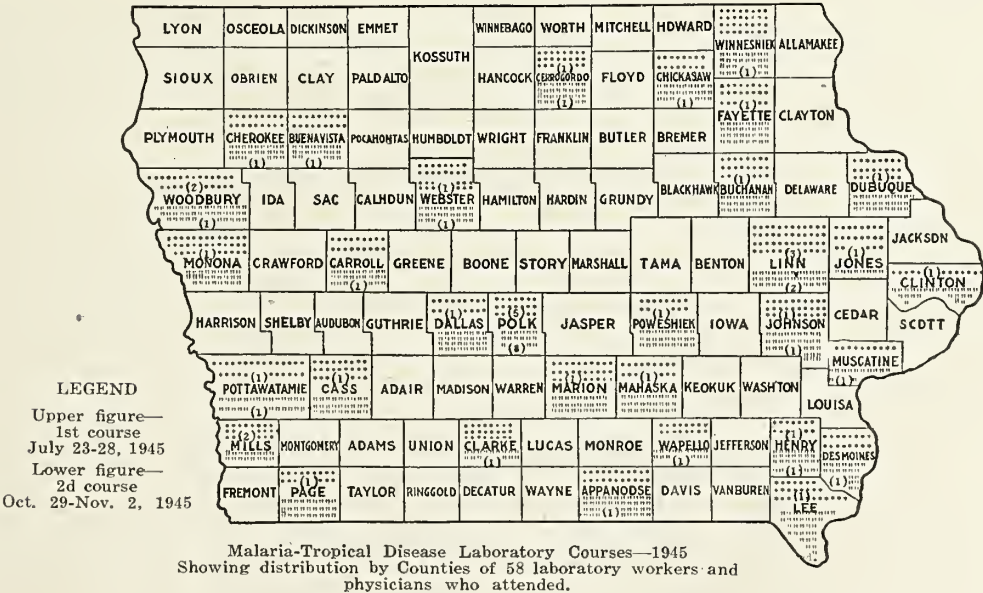
Malaria, Amebiasis, Tropical Diseases

Second Laboratory Course Conducted in Iowa

A second laboratory training course on parasites of malaria, amebiasis and tropical diseases was held at the State Hygienic Laboratory, Iowa City, October 29 to November 2, 1945. The course was sponsored by the College of Medicine, University of Iowa, and the Iowa State Department of Health in cooperation with the United States Public Health Service. The first course of this kind took place July 23 to 28, 1945; names and addresses of thirty attend-

ants were listed in the September issue of the JOURNAL, page 365. Attendants at the two courses totaled fifty-eight, including fifty-four laboratory workers and four physicians. The accompanying map shows the distribution by counties of persons who participated. Names of hospitals represented and of individuals who took part in the recent course are as follows:

Name of Registrant	Hospital	Address	County
Anna May Meeker	Veteran's Hospital	Des Moines	Polk
Mary Kay Greteman	Dr. Collin's office	Des Moines	Polk
Sister Mary Lucien	Mercy Hospital	Council Bluffs	Pottawattamie
Sister Mary Natalie	St. Joseph's Hospital	Centerville	Appanoose
Sister Gonzagia	St. Joseph's Hospital	New Hampton	Chickasaw
Sister Genevieve	St. Mary's Hospital	Watertown, Wis.	
Eileen Lex	Mercy Hospital	Des Moines	Polk
Margaret Krepsky	Dr. Morgan's office	Mason City	Cerro Gordo
Mrs. Pauline Griffith	Broadlawns Hospital	Des Moines	Polk
Miss Eva Greene	Broadlawns Hospital	Des Moines	Polk
Rosemary Tucker	Iowa Methodist Hospital	Des Moines	Polk
Lavaun Bruns	Iowa Methodist Hospital	Des Moines	Polk
Agnes Foley	Health Department	Sioux City	Woodbury
Mrs. Henrietta Oetken	Burlington Hospital	Burlington	Des Moines
Sister Mary Mercedes	Mercy Hospital	Cedar Rapids	Linn
Sister Mary Annunciata	Mercy Hospital	Cedar Rapids	Linn
Ida Koehler	Bellevue Hospital	Muscatine	Muscatine
Rachael Hall	St. Joseph Mercy	Fort Dodge	Webster
Edna Allen	State Hospital	Alta	Buena Vista
Mrs. Edna Eischen	State Hospital	Cherokee	Cherokee
Darrell Vuagniaux	Iowa Lutheran Hospital	Des Moines	Polk
Gordon Anderson	Lutheran Hospital	Decorah	Winneshiekie
Herbert N. Boden, M.D.		Osceola	Clarke
Sister Paulissa	St. Anthony Hospital	Carroll	Carroll
Sister Gertrude	St. Francis' Hospital	LaCrosse, Wis.	
Sister Mary Patricia	Mercy Hospital	Iowa City	Johnson
Sister Mary Louis	St. Joseph Hospital	Ottumwa	Wapello
Dorothy Menefee	Henry Co. Memorial Hospital	Mt. Pleasant	Henry



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PRESENT STATUS OF THE MEDICAL SERVICE PLAN

It will be of interest to the physicians of Iowa to know that 480 physicians are enrolled in Iowa Medical Service at this writing, and 901 persons are already covered by policies issued by the company. These 901 persons are contained in ten groups which are enrolled; of these the employer pays the cost for five groups, employer and employee share the cost in three, and individuals carry their own policies by payroll deductions in two groups. Nine of the groups bought medical and surgical coverage; one bought surgical coverage only.

The comment has been widely made that the plan benefits the surgeon but ignores the general practitioner and internist. In this connection it is interesting to note that the first four claims filed are by general practitioners. One was filed by a pediatrician for a virus pneumonia; one was for a curettage done by a general practitioner; the third for an acute arthritis which necessitated hospitalization, the patient being under the care of a general practitioner; and the fourth an appendectomy which was performed by a man in general practice. It may be a whim of chance that the first four claims should be from men outside the surgical field, but it certainly belies the statement that only the surgeon will benefit from the plan.

Recently an analysis of the coverage was made to see how much work would be done by the general practitioner or internist. First and foremost was listed medical care in hospitalized illnesses, certainly the responsibility of an internist or general man. Under this heading one finds the heart and lung cases, the gastro-intestinal

emergencies, and the acute arthritis for which hospitalization is necessary.

Second in importance, probably, is the obstetric and gynecologic field. Here again the general practitioner does much of the work, more than the specialist.

Third are those surgical operations which are performed by many general practitioners, among them appendectomies, herniotomies, and removal of tonsils and adenoids. The man in general practice also takes care of many uncomplicated fractures.

Last on the list is minor surgery, a great deal of which is done by the family doctor.

Admittedly, many procedures covered by the plan will be performed by surgeons, by eye, ear, nose and throat men, by urologists, proctologists, etc. However, the coverage is broad enough to bring in nearly every doctor of medicine, and certainly the first four claims bring out the fact that surgeons have no monopoly.

As has been stated repeatedly by the proponents of Iowa Medical Service, the plan is not perfect. It is only to be expected that changes must be made from time to time as experience warrants. We do feel, however, that it is one of the best plans yet offered, both for the public and the doctors, and this is because we in Iowa have had the benefit of the experience of other plans.

Iowa Medical Service is now a going concern. As the doctors return from service, and as the county societies begin their new year and new activities, it is hoped that the enrollment in the plan will increase materially, and that coverage will be extended as fast as possible on a statewide basis. The success of the plan depends directly upon the amount of interest displayed by the physicians, whose plan it is. A good beginning has been made—let's all get behind it and make it work!

STREPTOMYCIN MOST RECENT OF THE ANTIBIOTICS

An increasing number of references in medical literature and indeed in the lay press are being encountered concerning streptomycin, the most recent of the antibiotics to be developed. This substance was first described in January, 1944, by Schatz, Bugie and Waksman in the *Proceedings of the Society for Experimental Biology and Medicine*. It was obtained from the culture filtrate of the *Actinomyces griseus* and is stated to have a marked antibacterial action in vitro against many gram-negative and gram-positive bacteria. In animal experimentation it has been found sufficiently effective against *Mycobacterium tuberculosis* to justify further trial.

In the October 25 issue of *The New England Journal of Medicine*, Anderson and Jewell report on The Absorption, Excretion and Toxicity of Streptomycin in Man. They found that streptomycin, like penicillin, is not absorbed after oral administration in amounts sufficient to produce detectable concentrations of the drug in the serum. However, it is not the acidity of the gastric juice which produces the inactivation. Concentrations of the drug in the serum, except for the first few minutes, are essentially the same after either intramuscular or intravenous injections. Excretion is by the way of the urinary tract but is more slow than is the case with penicillin; thus, after single intramuscular or intravenous doses are given, only 46 to 87 per cent is recovered in the urine within twenty-four hours. Streptomycin, again like penicillin, diffuses only to a slight extent into the cerebral spinal fluid. It may be injected intrathecally, however, and in appropriate concentrations does not produce signs of meningeal irritation. As much as 600,000 units have been given in single doses without any serious toxic reactions resulting, and as much as 18,150,000 units have been given over a period of two to three weeks still without serious toxic reactions. However, concentrated solutions intravenously or subcutaneously do produce discomfort. Intramuscular injections are well tolerated for periods up to one to two weeks but thereafter the buttocks become constantly painful, tender, and indurated. The authors describe the use of streptomycin in three cases of clinical infection due to a gram-negative bacillus. The first was a patient with typhoid fever, the second a patient with pyelonephritis and bacteremia caused by a Group B Salmonella, and the third was a 5-year-old girl with meningitis and bacteremia due to Hemophilus influenzae. All of the patients recovered but the authors hesitate to draw any definite conclusions concerning the efficacy of streptomycin based on their experiences in these three patients.

The Journal of the American Medical Association for November 17 comments on a report by Helmholz in the *Proceedings of the Staff Meetings of the Mayo Clinic* for October 3, 1945. Helmholz found that streptomycin in concentration of 1,330 units per cubic centimeter of urine would kill within one hour cultures of *Streptococcus fecalis* and *Pseudomonas aeruginosa*—two organisms which have been most resistant to previous methods of therapy. Helmholz believes that as a result of his studies streptomycin should prove to be the most useful urinary antiseptic so far developed.

NORTH CENTRAL MEDICAL CONFERENCE

The North Central Medical Conference met in St. Paul, Minnesota, Sunday, November 11, 1945, with about sixty persons present from Wisconsin, Iowa, North and South Dakota, Nebraska, and Minnesota. Dr. R. D. Bernard of Iowa, President, opened the conference with a talk setting forth the objectives of the meeting. He stated the program had been planned to focus attention upon the coming meeting of the House of Delegates of the American Medical Association and the problems which would arise there. He mentioned the returning medical officers and their problems, saying they must be given every consideration; the necessity of getting an adequate distribution of physicians; the need for coordination of medical care plans so that the nation as a whole may eventually be integrated into some sort of system; the part the Council on Medical Service and Public Relations has played in the two years and a half of its existence; and the growing recognition of the need for a good public relations man and a Council on Legislative Policy to act between sessions of the House of Delegates.

Dr. Victor Johnson, Secretary of the Council on Medical Education and Hospitals of the American Medical Association, spoke on educational facilities. Dr. Johnson explained the need for training the returning medical officers who were victims of the accelerated program and short house-officer training. He cited figures from his survey which showed that training in surgery, medicine, obstetrics and gynecology, and general review were most in demand. Six thousand new residencies are needed, more than double the prewar number. Of these 2,400 have now been provided by hospitals. Thirteen thousand medical officers want certification, over half as many as were previously certified in the years prior to March 1, 1945. The G. I. Bill will apply to doctors who wish to take further training. Approval of residencies is being speeded up by the Council. One thing which may help in the training of physicians is a plan of the medical colleges to send medical students home for a six-month vacation when the present course finishes in April. This would free the faculty and facilities and give the schools a chance to provide two three-month courses for returning medical officers. The Army does not favor this but the schools may insist on the right to make their own plans.

Dr. John C. Parsons of Iowa next discussed what Iowa is doing in the placement of medical officers in practices in the state. He told of the survey made of existing openings and explained

how individual consideration is given to each request.

The next subject for discussion was rural health, and Mr. J. S. Jones of St. Paul, member of the National Committee on Rural Medical Service of the American Farm Bureau Federation, was first speaker. He outlined seven points which the Farm Bureau had presented to the American Medical Association, which were approved. They included an endeavor by the American Medical Association to have the state medical societies cultivate better working relations with the Farm Bureaus; the suggestion that a rural representative be included on all health committees, national, state or local; co-operation of the medical profession and the Farm Bureau in combatting state medicine by promoting a constructive program; determining the needs, on a factual basis, for hospital and medical services in rural areas; farm group leadership in working out plans for improving public health, with emphasis on local control and participation; encouragement of farm youths to enter medicine or veterinary medicine by some plan of scholarships or loan funds; and cooperation in developing prepaid medical and hospital care plans on a sound basis. He mentioned the support given Blue Cross by farm groups and their desire for medical care programs.

Mr. L. W. Larson of Bismarck, North Dakota, discussed the part of medicine in the rural health picture, saying it had always been a problem, with availability and cost the two outstanding problems. He presented a clear analysis of the difficulties involved, but expressed the strong conviction that prepayment plans could solve it. His analysis of the economics of the matter and his recommendations as to hospitals and their utilization were excellent.

Dr. W. A. O'Brien, Director of Postgraduate Medical Education at the University of Minnesota, discussed the problem from the hospital standpoint and his talk showed great thought. He discussed the number of beds per 1,000 population, pointing out the dangers of attempting too much, the need for divisions for care of the aged, for a hospital architect, and sound financing. One suggestion he made was that men in practice should take an ex-service man for a few months and act as a preceptor to him. He felt this would be a great benefit both to the young man and the physician in practice. He also analyzed the things to be sought from a residency, and the responsibilities of the hospital staff in providing good internships and residencies.

Dr. Joseph S. Lawrence of Washington, director of the Washington office, explained the

procedure of both houses of Congress in considering legislation, and told how his office functions. He also mentioned the status of various bills, and emphasized that the Pepper bill is the most insidious.

The final discussion was on prepaid medical service, and Mr. Jay C. Ketchum of Michigan Medical Service gave an excellent talk on the growth and extent of service plans, the place they are filling in society, and the advantages of a professionally sponsored service plan over any other type. The figures he gave were most encouraging and seemed to indicate a continued expansion of coverage within the next ten years.

Dr. A. W. Adson of Rochester gave a summary of the history of the Council on Medical Service and Public Relations, and told of the sectional meetings which had been held. He also mentioned the meeting in Chicago and the various things which had been taken up there, among them the veterans' care problem and the prepayment plans. It is a question whether we should continue to operate on the state level, independently or in cooperation with Blue Cross, and it seemed to be his feeling that the medical profession should have a national plan of some sort. He also said the Council would recommend a liaison committee on legislation, authorized to act between sessions of the House of Delegates.

Following discussion, election of officers took place and Dr. J. D. McCarthy of Omaha was named president, and Mr. R. R. Rosell of St. Paul, secretary-treasurer.

A resolution calling for the reelection of Dr. A. W. Adson to the Council on Medical Service and Public Relations was unanimously approved.

PENICILLIN SHORTENS CONTAGIOUS PERIOD OF SCARLET FEVER

For many years the customary quarantine period for scarlet fever was a minimum of twenty-eight days. Father was required to seek living quarters elsewhere or give up his work and be quarantined in his home with the patient. Some ten or fifteen years ago these regulations, which often amounted to an economic hardship for families in the less well-to-do classes, were modified to a twenty-one day period and the male head of the family was permitted to reside at home providing his work was not teaching or the handling of food. Such are the present isolation requirements for scarlet fever in Iowa. Persistence of causative organisms in the nose and throat of scarlet fever patients and the late appearance of complications in the disease explain the rationale of this relatively long quarantine

period. Even with the time shortened and restrictions relaxed in respect to the breadwinner, a diagnosis of scarlet fever still strikes consternation in many families, frequently not so much because of the risks from the disease but because of the inconveniences imposed by twenty-one days of isolation and by the expense of hospitalization where this is necessary.

Many physicians have questioned the wisdom of requiring three weeks of isolation for a streptococcic sore throat accompanied by a rash when streptococcic sore throats unaccompanied by a rash, but which have the same potentialities for systematic damage, receive no official public health attention. Nevertheless, no likelihood of further changes in the statute governing scarlet fever quarantine appeared in the immediate offing until the advent of penicillin. A study carried out at the South Department (contagious disease hospital) of the Boston City Hospital by Meads and associates and reported in the November 17 issue of the *Journal of the American Medical Association* suggests that penicillin therapy in scarlet fever may permit reduction by at least a half in the present quarantine period with safety to the patient and to those in his environment. Four groups of nine patients each were included in the study. To the first group no sulfonamide or antibiotics were given. The second group with a single exception received 10,000 units of penicillin intramuscularly every three hours. The third group was treated with sulfadiazine orally, while the fourth group of nine patients received a penicillin sprav in the nose and throat every four hours.

The primary purpose of the study was to determine the effect of the four methods of treatment upon the bacterial flora (especially beta hemolytic streptococci) in the nose and pharynx. Suitable cultures were taken from the nose and throat of every patient on admission, twenty-four hours after treatment was begun, two or three more times while therapy was in progress, and twice weekly thereafter until the patient's discharge. Beta hemolytic streptococci were classified according to the Lancefield groups, and those of group A were typed for numerical strain.

The authors found that in patients treated intramuscularly with penicillin hemolytic streptococci disappeared from the nose and throat within forty-eight hours and that if treatment was continued for seven days the original types of streptococci did not reappear. Furthermore, no complications appeared in any of this group. These findings were in distinct contrast to those of all the other groups. Penicillin spraying kept the nose free of streptococci but had little effect on those in the pharynx. Sulfadiazine for seven

days depressed the streptococci while treatment was in progress, but they recurred as soon as treatment was stopped.

As admitted by the authors, the small number of patients studied prevents drawing final conclusions. Nevertheless the detailed care with which the work was done, the uniformity of results obtained, and the benefits to be derived from a reduction in the quarantine period in scarlet fever, all point to this as being a significant piece of worthwhile research.

In the event that oral administration of penicillin, or even its injection once a day, becomes practicable, scarlet fever therapy and its control would have become simplified indeed.

MISSISSIPPI VALLEY MEDICAL SOCIETY 1946 ESSAY CONTEST

The Mississippi Valley Medical Society is resuming its annual Essay Contest which has not been held during the war. In 1946 it offers a cash prize of \$100.00, a gold medal, and a certificate of award for the best unpublished essay on any subject of general medical interest (including medical economics) and practical value to the general practitioner of medicine. Certificates of merit may also be granted to the physicians whose essays are rated second and third best. Contestants must be members of the American Medical Association who are residents of the United States. The winner will be invited to present his contribution before the next annual meeting of the Mississippi Valley Medical Society to be held at St. Louis, Mo., September 25, 26, 27, 1946, the Society reserving the exclusive right to first publish the essay in its official publication—the *Mississippi Valley Medical Journal* (incorporating the *Radiologic Review*). All contributions shall not exceed 5,000 words, be typewritten in English in manuscript form, submitted in five copies, and must be received not later than May 1, 1946.

Further details may be secured from Harold Swanberg, M.D., Secretary, Mississippi Valley Medical Society, 209-224 W. C. U. Building, Quincy, Illinois.

COMING MEDICAL MEETINGS

American Medical Association House of Delegates, Chicago, Palmer House, December 3 to 6, 1945.

International College of Surgeons, Washington, D. C., Mayflower Hotel, December 7 and 8, 1945.

American Society of Anesthetists, New York, December 12 and 13, 1945.

Sioux Valley Medical Society, Sioux City, Iowa, Martin Hotel, January 30 and 31, 1946.

Chicago Medical Society Annual Clinical Conference, Chicago, Palmer House, March 5 to 8, 1945.

Tuberculosis Must Be Faced as a Postwar Problem

HERBERT L. MATTHEWS

Chief, London Bureau, *New York Times*

Those of us who have seen what tuberculosis can do in war and after war are more frightened about it and more likely to take it seriously than those who have had to stay at home. That is the only reason why a layman like myself, who knows nothing about medicine but who has seen much suffering, can dare to write about disease. I have been a war correspondent for ten years now—from Abyssinia to Spain, to the World War—and TB is as much a part of war as shells and bombs.

Sometimes you sort of take it for granted, as in Ethiopia or India where misery seems so natural that you have to force yourself to remember that much of it is man-made and preventable. Sometimes you see why it happens, as I did in Rome for instance. I lived there from 1939 to 1942 and I knew, vaguely, that the Italian capital was notorious for having a high TB rate. But it was not startling and the average person never thought about it.

Then came the war, and we conquered Rome on June 4, 1944. Allied Military Government, our civil affairs branch of the Allied Armies, went in the same day with its health authorities who immediately began a survey. A few weeks later the chief health officer told me that, incredible though it sounded, they were finding that one person in every five had tuberculosis.

When we invaded Southern France in August and fought all over the streets of Marseilles, I remember being told over the luncheon table that "so many people have TB now!" Later, a French authority estimated that in 1943 tuberculosis had increased 48 per cent in Paris over 1939.

In the past, TB killed more people than wars did. In the places I have mentioned and been in during recent years, the high TB death rate was due to war conditions, or poverty which the wars aggravated. At home in the United States we do not have that excuse—at least not yet, but TB develops slowly and it is too soon to tell what may happen after the war. That is when the real test comes, a test we are beginning to face.

And it is in its way a test of democracy. In Italy, under Fascism, I saw the State interesting itself to some extent in the prevention and relief of tuberculosis. Fascism, along with its multiple evils, found it useful to do some good things for the masses. In every field of human progress there is a challenge to democracy to show that the will of the people can provide as well as the fiat of a dictator.

A victory that left a legacy of disease would be a hollow one. World War I, it will be recalled, was

accompanied and followed by an influenza epidemic which took many more lives than all those killed in the conflict. It is as if Nature sets out to show us that if we must have destruction she can go us one better. Yet the conquest of that aspect of Nature is at the basis of civilization and progress.

What we see in the war-devastated countries is an abnormal condition where malnutrition, poor housing or no houses at all, lack of sanitation, lack of clothing and the like weaken the individual's resistance to disease germs. That has been unavoidable during the war, and doubtless will continue to be for another year or so, but Allied Military Government, or its equivalent, is fighting disease in every country of Europe.

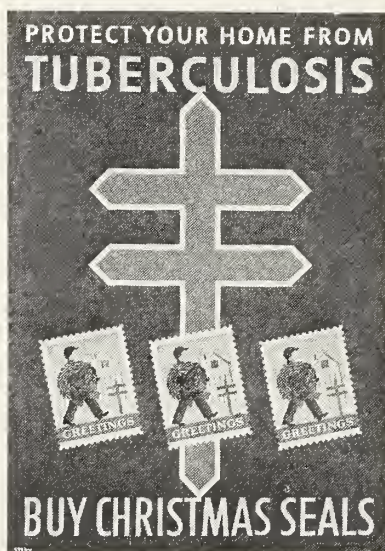
In the United States there is no convenient A.M.G., but neither is there destruction, famine, homelessness. The excuse is infinitely less. In America, education and popular contributions could be enough to reduce the 54,000 annual deaths from TB to a minimum. We Americans are apt to take our blessings for granted, although the soldiers who have been fighting far from home will not do so when they return.

They have suffered their share of TB, too, which is an extra pity, because they went into the Army after chest x-ray examinations which showed they were free of tuberculosis. But war has its casualties beyond those tragic lists of killed, wounded and missing which you see every day. You get no Purple Hearts for dysentery, jaundice, malaria or tuberculosis, but the victim is as much a casualty of war as the others. So many veterans of the

First World War broke down with tuberculosis that it cost about one billion dollars to care for them. This is already a much longer war, with many more men involved.

Now that V-J Day is past one wonders how many of those who escaped both bullet and germ should now be going home to face that same old enemy of mankind, the "mycobacterium tuberculosis." It is to reduce that number, and those victims who are the relatives or sweethearts of the returning soldiers, that the campaign to sell Christmas Seals this year takes on an added meaning. The battles that are fought with fire and steel are won or lost, and that is the end of them, but the other battles, the ones that men and women fight against disease, never end and the arms can never be laid down.

It is to provide the arms that all of us have been asked to buy Christmas Seals.



Veterans Administration Program

[Summary of a talk given by Major General Paul R. Hawley, Medical Director, Veterans Administration, at the Public Relations Conference of the Council on Medical Service and Public Relations October 19-20, 1945.]

I am going to present to you very briefly and very frankly what we have in mind to improve the medical service of the Veterans Administration. It falls into two large problems, one of institutional care and one of outpatient care. We are going to the medical profession for help in improving our institutional care. We are asking for part-time service from doctors in private practice and from members of the faculties of medical schools.

You are mainly interested in the outpatient problem, however. At the moment all women veterans are entitled to outpatient care at whatever expense for any disability, service-connected or non-service-connected. Men veterans are entitled to outpatient care for service-connected disability only. This introduced an administrative problem in determining whether a man applying for outpatient care is entitled to it at government expense. This is not an insurmountable problem, however, and can be solved by the ordinary identification card with coded disabilities.

We don't want to have the veteran treated in any way as a class apart from society. Insofar as possible he should get his medical care just as any other member of society gets it. In the past it has been customary to designate one or two physicians in the community as Veterans Administration physicians and all veterans were forced to go to them. Sometimes these physicians are ones who have plenty of time on their hands, to whom not many people in the community go. We should like to reverse that. We should like to have every physician in each community designated as a Veterans Administration physician so that each veteran could choose his own physician just like every one else in the community.

How are we going to work that out? Well, there are some three thousand counties in the United States and the problem may have to be worked out in three thousand different ways. Each county has its own medical problems, and we will make the shoe fit the foot of three thousand different plans.

I want to tell you of our start. The Monmouth County New Jersey Medical Society submitted a plan last May whereby as a county society they would give outpatient care to the veterans. They would establish an outpatient clinic staffed with various specialists one or two nights a week, but would keep it open all the time for emergencies. They would have regular meetings of a rather special staff, and would contact the regional officers of the Veterans Administration and establish the service connection.

They would arrange for hospital care and would take the same chance on getting paid as they do on regular patients. This proposal of last May was turned down, but when I found out about it, I telephoned the officers and asked if they were willing to reopen the subject. Fortunately for the Veterans Administration, they were.

There was one part of their proposal I thought was extremely unfair to them, and that was they were going to operate this clinic three months without any expense to the government except the fees paid to the physician. They wanted to establish how much it was going to cost and insisted on taking care of the clerical end at their own expense.

Now as to fees. We can't set a scale of fees for the country any more than we could set a scale of prices for meals to be applicable in every restaurant in the United States. We told Monmouth County, "You put in a scale of fees you think is fair and equitable to your own people, remembering only one thing—there are many times when a doctor charges a fee but does not get it. We don't think we can pay the top prices the doctor gets from his wealthiest patients but we don't want to beat down the fee either." Obviously the scale of fees varies with communities and we are going to have no set scale.

The next thing that frightens many people is the terrific amount of administrative work the doctor has to do. He has interminable forms to fill out. We are going to try to simplify these forms. You must remember these are pensionable cases and the government has to have some permanent record of what is wrong with a man. Furthermore, anybody who draws pay from the government has to sign something once a month. Our position is that since the Veterans Administration requires all this over and above medical care, the Veterans Administration should furnish the clerical help to do it.

We have only made a start in one county. We hope the news gets around to other counties because it is essentially a local arrangement. We will submit a plan to the thirteen districts when we decentralize. The local regional man will be given authority to deal with local societies.

In conclusion I want to say that in the interest of the veteran, and the interest of the people of the country, we want this care of the veteran to be done by a free and unregimented profession. We want to preserve the structure of medicine in this country. We want the minimum of government supervision of the care of the veteran. We are willing to rely on the honest effort of the profession as a profession and we feel that we are contributing something to the medical profession in giving it an opportunity at no great sacrifice.

President's Page

A SERVICE FOR RETURNING MEDICAL OFFICERS

The Iowa State Medical Society is now attempting to offer an additional service to returning medical officers which may, also, relieve the heavy load carried by the older physicians at home.

There is a large group of returning medical officers who were inducted into service without the benefit of practical training, either as residents in an approved hospital or in the active practice of medicine. Many of these men may later be able to obtain residencies in approved hospitals for training in their desired specialties. In the meantime they may have a period of waiting of three months to a year or more. Others may wish only to have an opportunity for "brushing up" or to become familiar with advances which have been made in medical practice during their absence. There are not enough hospital vacancies available to meet the needs of either of these groups but there are, throughout Iowa, a large number of overworked general practitioners and specialists who need assistants.

We propose to prepare a list of medical men in practice who desire assistants—this list to be made available to the returning medical officer. You physicians, especially the general practitioners, have an opportunity to render a great service to these younger men who, *right now*, need actual experience, either to prepare themselves for active practice or to put in time while waiting for a residency in an approved hospital to begin their special training. These men can profit by your advice, your experience, and most certainly by the financial assistance you can offer them. This cooperative service should be on a temporary basis for periods varying from three months to a year. However, it may be that some of these young men may be interested in accepting a general practice or a partnership.

If you are interested in assisting one of these young men, and would like to have him help you carry the load of your practice, send your request to the central office, 505 Bankers Trust Building, Des Moines 9, Iowa, stating the type of practice, length of service available, etc.—but do it now.

R. D. Bernard, M.D.

President, Iowa State Medical Society.

Roster of Iowa Physicians in Military Service

As of November 23, 1945

Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.)Lt. Col., A.U.S.

Adams County

Bain, C. L., Corning (Fleet PO, San Francisco, Cal.)Lt. Comdr., U.S.N.R.

Allamakee County

Ivens, M. H., Waukon (Miami Beach, Fla.)Capt., A.U.S.
Rominger, C. R., Waukon (Camp Claiborne, La.)A.U.S.

Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.) ..Major, U.S.P.H.S.
Edwards, R. R., Centerville (APO 513, New York, N. Y.)Major, A.U.S.
Huston, M. D., Centerville (Hot Springs, Ark.)Capt., A.U.S.

Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.)Major, A.U.S.

Benton County

Senfeld, Sidney, Belle Plaine

Black Hawk County

Bickley, D. W., Waterloo (APO New York, N. Y.) ..Capt., A.U.S.
Bickley, J. W., Waterloo (APO 956, San Francisco, Cal.)Capt., A.U.S.
Butts, J. H., Waterloo (Galveston, Texas)Comdr., U.S.N.R.
Cooper, C. N., Waterloo (Fleet PO, San Francisco, Cal.)Lt. Comdr., U.S.N.R.
Ericsson, M. G., Cedar Falls (Fort Bragg, N. Car.) ..Capt., A.U.S.
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.)Capt., A.U.S.
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.)Capt., A.U.S.
Ludwick, A. L., Waterloo (Abilene, Texas)Major, A.U.S.
Marquis, F. M., Waterloo (APO 513, New York, N. Y.)Capt., A.U.S.
O'Keefe, P. T., Waterloo (APO 79, New York, N. Y.)Capt., A.U.S.
Rohlf, E. L., Jr., WaterlooMajor, A.U.S.
Seibert, C. W., Waterloo (Colorado Springs, Colo.) ..Major, A.U.S.
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.)Major, A.U.S.
Trunnell, T. L., Waterloo (Farris Island, S. Car.) ..Lt. U.S.N.R.

Boone County

Brewster, E. S., Boone (APO 254, New York, N. Y.) ..Major, A.U.S.
Healy, M. J., Boone (Fort Sill, Okla.)Capt., A.U.S.

Bremer County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.)Lt., U.S.N.R.

Buchanan County

Barton, J. C., IndependenceLt. Col., A.U.S.
Hersey, N. L., Independence (Astoria, Ore.) ..Lt. Comdr., U.S.N.R.

Buena Vista County

Hansen, R. R., Storm LakeLt., U.S.N.R.
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) ..Capt., A.U.S.
Witte, H. J., Marathon (APO 350, New York, N. Y.)Major, A.U.S.

Butler County

Andersen, B. V., Greene (Ft. Lauderdale, Fla.)Lt., U.S.N.R.
James, R. A., Allison (Mare Island, Cal.)Lt. Comdr., U.S.N.R.
Rofls, F. O., Parkersburg (Springfield, Mo.)1st Lt., A.U.S.

Calhoun County

Grinley, A. V., Rockwell City (APO 350, New York, N. Y.)Capt., A.U.S.
McVay, M. J., Lake City (Waco, Texas)Capt., A.U.S.
Peek, L. H., Lake City (Camp Carson, Colo.)Capt., A.U.S.
Stevenson, W. W., Rockwell City (Seattle, Wash.)Lt. Comdr., U.S.N.R.

Carroll County

Anneberg, A. R., Carroll (APO 70, San Francisco, Cal.)Capt., A.U.S.
Anneberg, W. A., Carroll (APO 367, New York, N. Y.)Capt., A.U.S.
Cochran, J. L., Carroll (Gulfport, Miss.)Capt., A.U.S.
Freedland, Maurice, Coon RapidsCapt., A.U.S.
Scannell, R. C., Carroll (Denver, Colo.)Major, A.U.S.
Tindall, R. N., Coon Rapids (Camp Grant, Ill.)Major, A.U.S.
Wyatt, M. R., Manning (Chatham Field, Ga.)Capt., A.U.S.

Cass County

Ergenbright, W. V., Atlantic (APO 331, San Francisco, Cal.)Capt., A.U.S.
Peterson, M. T., Atlantic (Charleston, S. Car.)Capt., A.U.S.
Schiff, Joseph, Anita (Walla Walla, Wash.)Capt., A.U.S.

Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.)Lt., U.S.N.R.

Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.)Major, A.U.S.
Egloff, W. C., Mason City (Omaha, Nebr.)Capt., A.U.S.
Fitzpatrick, M. R., Mason City (Carlisle Barracks, Pa.)1st Lt., A.U.S.
Flickinger, R. R., Mason City (Memphis, Tenn.)Capt., A.U.S.
Harris, R. H., Mason City (Dyersburg, Tenn.)Capt., A.U.S.
Harrison, G. E., Mason CityCol., A.U.S.
Morgan, P. W., Mason City (APO 89, New York, N. Y.)Capt., A.U.S.
Mullen, L. M., Mason CityCapt., A.U.S.
Tice, G. I., Mason City (Fleet PO, San Francisco, Cal.)Lt. (jg), U.S.N.R.
Tice, W. A., Mason City (Ft. Eustis, Va.)Lt. (jg), U.S.N.R.
Woodward, E. R., Mason City (Chicago, Ill.)Lt., U.S.N.R.

Cherokee County

Bullock, G. D., Washta (APO 17583, New York, N. Y.)Capt., A.U.S.

Chickasaw County

Caulfield, J. D., New HamptonMajor, A.U.S.
O'Connor, E. C., New Hampton (Salinas, Cal.)Capt., A.U.S.

Clarke County

Armitage, G. I., Murray (APO 629, New York, N. Y.)Capt., A.U.S.

Clay County

King, D. H., Spencer (Greensboro, N. Car.)Capt., A.U.S.

Clayton County

Glesne, O. G., Monona (Knoxville, Iowa)Capt., A.U.S.
Rhomborg, E. B., Guttenberg (APO 584, New York, N. Y.)Capt., A.U.S.

Clinton County

Amesbury, H. A., Clinton (APO 218, New York, N. Y.)Major, A.U.S.
Burke, J. C., Clinton (Great Bend, Kan.)A.U.S.
Ellison, G. M., Clinton (APO 9030, New York, N. Y.)Capt., A.U.S.
Hill, D. E., Clinton (APO 9787, New York, N. Y.)Capt., A.U.S.
Lenaghan, R. T., Clinton (Olathe, Kans.)Lt. Comdr., U.S.N.R.
Norment, J. E., Clinton (San Bruno, Cal.)Comdr., U.S.N.R.
O'Donnell, J. E., Clinton (Fleet PO, San Francisco, Cal.)Lt., U.S.N.R.
Riedesel, E. V., Wheatland (Fort Douglas, Utah)Capt., A.U.S.
Speigel, I. J., Clinton (Galesburg, Ill.)Capt., A.U.S.
Van Epps, E. F., ClintonCapt., A.U.S.
Waggoner, C. V., Clinton (Fleet PO, San Francisco, Cal.)Lt. Comdr., U.S.N.R.
Wells, L. L., Clinton (APO 562, New York, N. Y.)Capt., A.U.S.

Crawford County

Fee, C. H., Denison (APO 696, New York, N. Y.) ..Major, A.U.S.
Gau, A. H., Denison (Oceanside, Cal.)Lt. Comdr., U.S.N.R.
Maire, E. J., Vail (Humphrey, Nebr.)Capt., A.U.S.
Wetrich, M. F., Manilla (Topeka, Kan.)Capt., A.U.S.

Dallas-Guthrie Counties

Butterfield, E. T., Dallas Center (Palm Springs, Cal.)1st Lt., A.U.S.
Byrnes, A. W., Guthrie Center (Fort Custer, Mich.) ..Major, A.U.S.
Fall, C. S., Adel (Fleet PO, San Francisco, Cal.)Lt. U.S.N.R.
Margolin, J. M., Perry (APO 350, New York, N. Y.)Capt., A.U.S.
McGilvra, R. I., Guthrie CenterLt., U.S.N.R.
Mullmann, A. J., Adel (APO 565, San Francisco, Cal.)Capt., A.U.S.
Osborn, C. R., DexterLt., U.S.N.R.

Davis County

Fenton, C. D., Bloomfield (APO 5253, New York, N. Y.)Capt., A.U.S.

Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.)Capt., A.U.S.
Clark, R. E., Manchester (APO 419, New York, N. Y.)Capt., A.U.S.

Des Moines County

Eigenfeld, M. L., Burlington (Cleveland, Ohio)1st Lt., A.U.S.
Heitzman, P. O., Burlington (Fort Lewis, Wash.)Capt., A.U.S.

McKitterick, J. C., Burlington (Hamilton, R. I.) Comdr., U.S.N.R.
 Moerke, R. F., Burlington (APO 565, San Francisco, Cal.) Major, A.U.S.
 Sage, E. C., Burlington (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Dickinson County

Buchanan, J. J., Milford (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Henning, G. G., Milford (San Antonio, Texas) Major, A.U.S.
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.) Capt., A.U.S.

Dubuque County

Anderson, E. E., Dubuque (Bradley Field, Conn.) Capt., A.U.S.
 Conzett, D. C., Dubuque (APO 887, New York, N. Y.) Lt. Col., A.U.S.
 Cunningham, J. C., Dubuque (Fairfield, Ohio) Capt., A.U.S.
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.) Major, A.U.S.
 Hall, C. B., Dubuque (APO 11331, New York, N. Y.) Capt., A.U.S.
 Knoll, A. H., Dubuque (San Francisco, Cal.) Major, A.U.S.
 Langford, W. R., Epworth (Miami Beach, Fla.) Capt., A.U.S.
 Lavery, H. B., Dubuque (Washington, D. C.) Lt. Col., A.U.S.
 Leik, D. W., Dubuque (Wichita Falls, Tex.) Capt., A.U.S.
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.) Capt., A.U.S.
 Olson, P. F., Dubuque (San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Painter, R. C., Dubuque (Salt Lake City, Utah) Lt., U.S.N.R.
 Paulus, J. W., Dubuque (APO 115, New York, N. Y.) Capt., A.U.S.
 Quinn, F. P., Dubuque (New Orleans, La.) Major, A.U.S.
 Scharle, Theodore, Dubuque (Ft. Sam Houston, Texas) Capt., A.U.S.
 Schueller, C. J., Dubuque (APO 384, New York, N. Y.) 1st Lt., A.U.S.
 Sharpe, D. C., Dubuque (APO 562, New York, N. Y.) Major, A.U.S.
 Smith, C. W., Dubuque (Shoemaker, Cal.) Lt., U.S.N.R.
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.) Lt. Col., A.U.S.
 Straub, J. J., Dubuque (Bethesda, Md.) Lt. Comdr., U.S.N.R.
 Ward, D. F., Dubuque (Great Lakes, Ill.) Lt. Comdr., U.S.N.R.

Emmet County

Collins, L. E., Estherville (APO 247, San Francisco, Cal.) 1st Lt., A.U.S.
 Miller, O. H., Estherville (Seattle, Wash.) Lt. Comdr., U.S.N.R.

Fayette County

Gallagher, J. P., Oelwein (Peru, Indiana) Lt., U.S.N.R.
 Henderson, W. B., Oelwein (APO 234, San Francisco, Cal.) Lt. Col., A.U.S.
 Sulzbach, J. F., Oelwein Lt., U.S.N.R.
 Walsh, E. W., Hawkeye (Huntington, W. Va.) A.U.S.
 Walsh, W. E., Hawkeye (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

Floyd County

Baltzell, W. C., Charles City (APO 2, New York, N. Y.) Major, A.U.S.
 Flater, N. C., Floyd (APO 350, New York, N. Y.) Capt., A.U.S.
 Huber, R. H., Charles City 1st Lt., A.U.S.
 Knight, R. A., Rockford (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Mackie, D. G., Charles City (Danville, Ill.) Capt., A.U.S.
 Magdsick, Carl, Charles City (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
 Miner, J. B., Jr., Charles City (San Diego, Cal.) Lt., U.S.N.R.

Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) 1st Lt., A.U.S.
 Hedgecock, L. E., Hampton (Camp Lejeune, N. Car.) Lt. Comdr., U.S.N.R.
 Randall, W. L., Hampton (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.

Fremont County

Kerr, W. H., Hamburg (APO 926, San Francisco, Cal.) Capt., A.U.S.
 Powell, R. A., Farragut (Fleet PO, San Francisco, Cal.) Lt. (jg), U.S.N.R.
 Wannamaker, A. R., Hamburg Major, A.U.S.

Greene County

Cartwright, F. P., Grand Junction (APO 511, New York, N. Y.) Capt., A.U.S.
 Castles, W. A., Rippey (APO 958, San Francisco, Cal.) Major, A.U.S.

Grndy County

Cullison, R. M., Dike (Fort Howard, Md.) Major, A.U.S.
 Rose, J. E., Grundy Center (Fleet PO, New York, N. Y.) Lt. Comdr., U.S.N.R.

Hamilton County

Lewis, W. B., Webster City (APO 383, New York, N. Y.) Major, A.U.S.
 Mooney, F. P., Jewell (APO 339, New York, N. Y.) Capt., A.U.S.
 Paschal, G. A., Williams (Camp Crowder, Mo.) Capt., A.U.S.
 Patterson, R. A., Webster City (San Diego, Cal.) Lt. Comdr., U.S.N.R.

Ptacek, J. L., Webster City (APO 140, New York, N. Y.) Capt., A.U.S.
 Schrader, M. A., Webster City (Topeka, Kan.) 1st Lt., A.U.S.

Hancock-Winnebagoo Counties

Eller, L. W., Kanawha (APO 302, New York, N. Y.) Capt., A.U.S.
 Irish, T. J., Forest City (San Diego, Cal.) Comdr., U.S.N.R.
 Shaw, D. F., Britt (APO 334, San Francisco, Cal.) Major, A.U.S.
 Thomas, C. W., Forest City (APO 519, New York, N. Y.) Major, A.U.S.

Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.) Lt., U.S.N.R.
 Johnson, R. J., Iowa Falls (APO 514, New York, N. Y.) Capt., A.U.S.
 Johnson, W. A., Alden (Orlando, Fla.) Capt., A.U.S.
 Steenrod, E. J., Iowa Falls (Oceanside, Cal.) Lt. Comdr., U.S.N.R.
 Todd, V. S., Eldora (APO 70, San Francisco, Cal.) Capt., A.U.S.

Harrison County

Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.) Capt., A.U.S.
 Heise, C. A., Jr., Missouri Valley Lt. Comdr., U.S.N.R.
 Tamsieia, F. X., Missouri Valley (APO 562, New York, N. Y.) Capt., A.U.S.

Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.) Major, A.U.S.
 Cogan, Samuel, Mt. Pleasant Major, A.U.S.
 Dwankowski, Carl, Mt. Pleasant (APO 511, New York, N. Y.) Major, A.U.S.
 Gloeckler, B. B., Mount Pleasant (APO 9768, New York, N. Y.) Capt., A.U.S.
 Hartley, B. D., Mount Pleasant (Galesburg, Ill.) Capt., A.U.S.
 Megorden, W. H., Mount Pleasant (Ogden, Utah) Capt., A.U.S.
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.) Major, A.U.S.

Howard County

Buresh, Abner, Lime Springs (Oceanside, Cal.) Lt. Comdr., U.S.N.R.

Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.) Capt., A.U.S.
 Coddington, J. H., Humboldt (APO 19733-E, San Francisco, Cal.) Capt., A.U.S.

Ida County

Martin, J. W., Holstein (Albany, Ga.) Capt., A.U.S.

Iowa County

Geiger, U. S., North English (San Diego, Cal.) Lt. Comdr., U.S.N.R.
 McDaniel, J. D., Marengo (APO 1010, San Francisco, Cal.) Capt., A.U.S.
 Miller, D. F., Williamsburg (San Diego, Cal.) Lt., U.S.N.R.

Jackson County

Bausch, R. G., Bellevue (APO 251, New York, N. Y.) Capt., A.U.S.
 Skelley, P. B., Jr., Maquoketa (APO 247, San Francisco, Cal.) 1st Lt., A.U.S.

Jasper County

Doake, Clarke, Newton 1st Lt., A.U.S.
 Ritchey, S. J., Newton Lt. Col., A.U.S.

Jefferson County

Castell, J. W., Fairfield (Ft. Sam Houston, Texas) Capt., A.U.S.
 Frey, Harry, Fairfield (Norfolk, Va.) Lt. Comdr., U.S.N.R.
 Graber, H. E., Fairfield (APO 18642, San Francisco, Cal.) Lt. Col., A.U.S.
 Taylor, I. C., Fairfield (Washington, D. C.) 1st Lt., A.U.S.

Johnson County

Albert, S. M., Iowa City (APO 9622, New York, N. Y.) 1st Lt., A.U.S.
 Bunge, R. G., Iowa City (Orlando, Fla.) Capt., A.U.S.
 Callahan, G. D., Iowa City (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.
 Cobb, E. A., Iowa City (APO 14987, San Francisco, Cal.) 1st Lt., A.U.S.
 Coburn, F. E., Iowa City (Toronto, Canada) Capt., R.C.A.
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.) Capt., A.U.S.
 Diddle, A. W., Iowa City (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.
 Elmquist, H. S., Iowa City (San Diego, Cal.) Lt. Comdr., U.S.N.R.
 Emmons, M. B., Iowa City (Camp Bowie, Texas) Capt., A.U.S.
 Evers, L. B., Iowa City Major, U.S.P.H.S.
 Field, Grace E., Iowa City Major, U.S.P.H.S.
 Flax, Ellis, Iowa City (APO 758, New York, N. Y.) 1st Lt., A.U.S.
 Fourt, A. S., Iowa City (APO 34, New York, N. Y.) Lt. Col., A.U.S.
 Francis, N. L., Iowa City (Annapolis, Md.) Lt. (jg), U.S.N.R.
 Galinsky, L. J., Oakdale (APO 433, New York, N. Y.) Capt., A.U.S.

Garlinghouse, R. O., Iowa City (Ft. Riley, Kan.)...Lt. Col., A.U.S.
 Hartung, Walter, Iowa City (Camp Carson, Colo.)...Capt., A.U.S.
 Hessin, A. L., Iowa City (APO 472, New York, N. Y.)...Major, A.U.S.
 Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.)...Comdr., U.S.N.R.
 January, L. E., Iowa City (Pyote, Texas).....Major, A.U.S.
 Kanealy, J. F., Iowa City (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.
 Keislar, H. D., Iowa City (Washington, D. C.)...Capt., A.U.S.
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.
 Laubscher, J. H., Iowa City (Ft. Benning, Ga.)...1st Lt., A.U.S.
 Longwell, F. H., Iowa City (Daytona, Fla.).....Major, A.U.S.
 Moreland, F. B., Iowa City (Maxwell Field, Ala.)...1st Lt., A.U.S.
 Nagfly, S. F., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.
 Newman, R. W., Iowa City (Jacksonville, Fla.).....Lt. Comdr., U.S.N.R.
 Parkin, G. L., Iowa City (Mountain Home, Idaho) 1st Lt., A.U.S.
 Paulus, E. W., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.
 Ringrose, E. J., Iowa City
 Sells, R. L., Jr., Iowa City (Palmdale, Cal.).....Capt., A.U.S.
 Smith, H. F., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Speidel, G. P., Oakdale (Oteen, N. Car.).....Capt., A.U.S.
 †Springer, E. W., Iowa City (APO 678, New York, N. Y.).....Capt., A.U.S.
 Stadler, H. E., Iowa City (Washington, D. C.)...1st Lt., A.U.S.
 Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.
 Stump, R. B., Iowa City (Denver, Colo.).....Capt., A.U.S.
 Titus, E. L., Iowa City (Los Angeles, Cal.).....Col., A.U.S.
 Trapasso, T. J., Iowa City (APO 520, New York, N. Y.).....Capt., A.U.S.
 Trussell, R. E., Iowa City (APO 75, San Francisco, Cal.).....Capt., A.U.S.
 Voelker, C. A., Jr., Iowa City.....Capt., A.U.S.
 Ward, R. H., Iowa City (Jacksonville, Fla.)...Lt. Comdr., U.S.N.R.
 Weatherly, H. E., Iowa City (APO 74, San Francisco, Cal.).....Major, A.U.S.
 Wellmann, W. W., Iowa City (Louisville, Ky.)...1st Lt., A.U.S.
 Ziffren, S. E., Iowa City (Springfield, Mo.).....1st Lt., A.U.S.

Junior Members

†Adams, M. P., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.)...A.U.S.
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.)...Capt., A.U.S.
 Black, N. M., Iowa City (APO New York, N. Y.)...Capt., A.U.S.
 Blair, J. D., Iowa City (APO San Francisco, Cal.)...Major, A.U.S.
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.
 Brintnall, E. S., Iowa City (APO New York, N. Y.)...Major, A.U.S.
 Burr, S. P., Iowa City (APO San Francisco, Cal.)...1st Lt., A.U.S.
 Carney, R. G., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Connole, J. F., Iowa City (Camp Bowie, Texas)...1st Lt., A.U.S.
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.)...1st Lt., A.U.S.
 Coulson, F. H., Iowa City (APO New York, N. Y.)...Capt., A.U.S.
 Decker, C. E., Iowa City (Oklahoma City, Okla.)...1st Lt., A.U.S.
 Ehrenhaft, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.
 Freiberg, M., Iowa City (Jefferson Barracks, Mo.)...A.U.S.
 Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.
 Harms, G. E., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Hendricks, A. B., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.
 Hovis, Wm., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.
 Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.).....1st Lt., A.U.S.
 Kell, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.
 Kelberg, M. R., Iowa City (Alameda, Cal.).....Lt., U.S.N.R.
 Keleher, M. F., Iowa City (Great Lakes, Ill.)...Lt. (jg), U.S.N.R.
 Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.
 Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.
 McCann, J. P., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 McQuiston, W. O., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.
 Moen, B. H., Iowa City (APO 755, New York, N. Y.).....Capt., A.U.S.
 Moon, R. E., Iowa City (APO New York, N. Y.)...1st Lt., A.U.S.
 Odell, Lester, Iowa City (Pensacola, Fla.).....Lt. (jg), U.S.N.R.
 Phillips, R. M., Iowa City (San Francisco, Cal.)...1st Lt., A.U.S.
 Randall, R. G., Iowa City (Waterloo, Iowa).....Capt., A.U.S.
 Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.
 Russin, L. A., Iowa City (Fort Blanding, Fla.)...Capt., A.U.S.
 Saar, J. L., Iowa City (APO New York, N. Y.)...Major, A.U.S.
 Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.
 Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Shand, J. A., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Shapiro, S. I., Iowa City
 Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.
 Skewis, J. E., Iowa City (Corona, Cal.).....Lt. Comdr., U.S.N.R.
 Skouge, O. T., Iowa City
 Towle, R. A., Iowa City (Jacksonville, Fla.)...Lt. Comdr., U.S.N.R.
 Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.

Watters, V. G., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.
 Wicks, W. J., Iowa City (Camp Crowder, Mo.)...Capt., A.U.S.
 Williams, L. A., Iowa City (Treasure Island, Cal.)...1st Lt., A.U.S.
 Willumsen, H. C., Iowa City (Denver, Colo.)...Capt., A.U.S.
 Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.
 Yetter, W. L., Iowa City (APO New York, N. Y.)...Major, A.U.S.
 Zahrt, N. E., Iowa City (Keesler Field, Miss.)...Capt., A.U.S.
 Zimmerman, H. A., Iowa City (Santa Ana, Cal.)...1st Lt., A.U.S.

Keokuk County

Engelmann, A. T., What Cheer (Camp Polk, La.)...Capt., A.U.S.
 Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.
 Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.

Kossuth County

Clapsaddle, D. W., Burt (Manhattan, Kan.).....Capt., A.U.S.
 Corbin, R. L., Luverne (Des Moines, Iowa).....Capt., A.U.S.
 Kenefick, J. N., Algona (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Williams, R. L., Lakota (Iowa City, Iowa).....Lt. Comdr., U.S.N.R.

Lee County

Cleary, H. G., Fort Madison (Ft. Benning, Ga.).....Capt., A.U.S.
 Cooper, R. E., Keokuk (APO 565, San Francisco, Cal.) Capt., A.U.S.
 Johnstone, A. A., Keokuk (APO 942, Seattle, Wash.)...Col., A.U.S.
 McKee, T. L., Keokuk (Miami Beach, Fla.).....Major, A.U.S.
 Rankin, J. R., Keokuk (Memphis, Tenn.)...Lt. Comdr., U.S.N.R.
 Richmond, A. C., Fort Madison (San Bruno, Cal.).....Comdr., U.S.N.R.
 Younan, Thomas, Ft. Madison (APO 758, New York, N. Y.).....Capt., A.U.S.

Linn County

Berney, P. W., Cedar Rapids (Camp Crowder, Mo.).....Major, A.U.S.
 Block, W. M., Cedar Rapids (Memphis, Tenn.)...Capt., A.U.S.
 Chapman, R. M., Cedar Rapids (Chicago, Ill.)...Major, A.U.S.
 Coughlan, V. H., Coggon (Fort Snelling, Minn.)...A.U.S.
 Dunn, F. C., Cedar Rapids (La Junta, Colo.)...Major, A.U.S.
 Gearhart, Merriam, Springfield (APO 513, New York, N. Y.).....Major, A.U.S.
 Gerstman, Herbert, Marion (Clinton, Iowa).....Capt., A.U.S.
 Hecker, J. T., Cedar Rapids (APO 408, New York, N. Y.).....Capt., A.U.S.
 Kieck, E. G., Cedar Rapids (Norman, Okla.)...Comdr., U.S.N.R.
 Kruckenberg, W. G., Mount Vernon (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Leedham, C. L., Springfield (Camp Campbell, Ky.)...Col., A.U.S.
 Locher, R. C., Cedar Rapids (Temple, Texas).....Major, A.U.S.
 †MacDougal, R. F., Cedar Rapids (APO 9057, New York, N. Y.).....Capt., A.U.S.
 McConkie, E. B., Cedar Rapids (Hines, Ill.).....Major, A.U.S.
 McQuiston, J. S., Cedar Rapids (Fort Warren, Wyo.).....Lt. Col., A.U.S.
 Murray, E. S., Cedar Rapids (APO 512 New York, N. Y.).....Lt. Col., A.U.S.
 Netolicky, R. Y., Cedar Rapids (Hawthorne, Nev.).....Lt. Comdr., U.S.N.R.
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.).....1st Lt., A.U.S.
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.)...Major, A.U.S.
 Proctor, R. D., Cedar Rapids (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 Rieniets, J. H., Cedar Rapids, (Charleston, S. Car.).....Comdr., U.S.N.R.
 Smrha, J. A., Cedar Rapids (Topeka, Kan.).....Capt., A.U.S.
 Stansbury, J. R., Cedar Rapids (Fort Lewis, Wash.).....Capt., A.U.S.
 Sulek, A. E., Cedar Rapids.....Lt. Col., A.U.S.
 Wray, R. M., Cedar Rapids.....Major, A.U.S.
 Yavorsky, W. D., Cedar Rapids (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.

Louisa County

DeYarman, K. T., Morning Sun (San Antonio, Texas).....Capt., A.U.S.
 Tandy, R. W., Morning Sun (Oakland, Cal.).....Lt. Comdr., U.S.N.R.

Lucas County

Lister, K. E., Chariton (Fort Snelling, Minn.).....A.U.S.

Lyon County

Cook, S. H., Rock Rapids (Camp Chaffee, Ark.)...Major, A.U.S.
 Moriarity, F. J., Rock Rapids (Corvallis, Ore.)...Capt., A.U.S.

Madison County

Chesnut, P. F., Winterset (APO 411, New York, N. Y.).....Capt., A.U.S.

Mahaska County

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.).....Lt. Col., A.U.S.
 Bos, H. C., Oskaloosa (APO 758, New York, N. Y.).....Major, A.U.S.
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Clark, G. H., Oskaloosa (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Gillett, R. M., Oskaloosa (Fleet PO, San Francisco, Cal.).....Capt., U.S.N.

Greenlee, M. R., Oskaloosa (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 Hibbs, R. E., Oskaloosa.....Major, A.U.S.
 Keohen, G. F., Oskaloosa (APO 4299, San Francisco, Cal.).....Major, A.U.S.
 Lemon, K. M., Oskaloosa (APO 637, New York, N. Y.).....Capt., A.U.S.
 Reiley, R. E., Oskaloosa (APO 502, San Francisco, Cal.).....Major, A.U.S.
 Shurts, J. J., Oskaloosa (Fort Mason, Cal.).....Capt., A.U.S.
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.).....Capt., A.U.S.

Marion County

Ralston, F. P., Knoxville (Indio, Cal.).....Capt., A.U.S.
 Schiek, C. M., Knoxville.....Lt. Comdr., U.S.N.R.
 Schroeder, M. C., Pella (Camp Livingston, La.).....Capt., A.U.S.
 Williams, D. B., Knoxville.....Capt., A.U.S.

Marshall County

Carpenter, R. C., Marshalltown (APO 678 New York, N. Y.).....Capt., A.U.S.
 Marble, E. J., Marshalltown (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Marble, W. P., Marshalltown (Colorado Springs, Colo.).....Major, A.U.S.
 Phelps, R. E., State Center (APO 7, San Francisco, Cal.).....Capt., A.U.S.
 Wells, R. C., Marshalltown (Gowen Field, Idaho).....Capt., A.U.S.
 Wolfe, R. M., Marshalltown (Los Alamitos, Cal.).....Lt. Comdr., U.S.N.R.

Mills County

DeYoung, W. A., Glenwood (APO 562, New York, N. Y.).....Capt., A.U.S.
 Kuitert, J. H., Glenwood (St. Cloud, Minn.).....Major, A.U.S.

Mitchell County

Culbertson, R. A., St. Ansgar (APO 331, San Francisco, Cal.).....Lt. Col., A.U.S.
 Owen, W. E., Osage (San Diego, Cal.).....Lt., U.S.N.
 Walker, T. G., Riceville (Hutchinson, Kan.).....Lt. Comdr., U.S.N.R.

Monona County

Almer, L. E., Moorhead (Fort Knox, Ky.).....Capt., A.U.S.
 Ganzhorn, H. L., Mapleton (APO 72, San Francisco, Cal.).....Capt., A.U.S.
 Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Stauch, M. O., Whiting (Fort Lewis, Wash.).....Major, A.U.S.
 Wainwright, M. T., Mapleton (Hines, Ill.).....Capt., A.U.S.
 Wolpert, P. L., Onawa (Camp Atterbury, Ind.).....Capt., A.U.S.

Monroe County

Bay, F. N., Albia.....Lt. Comdr., U.S.N.R.
 Gilliland, C. H., Albia (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.
 Heilmann, V. R., Albia (Camp Maxey, Texas).....Capt., A.U.S.
 Smith, R. A., Albia (New Cumberland, Pa.).....Capt., A.U.S.

Montgomery County

Hansen, F. A., Red Oak (Hitchcock, Texas).....Lt., U.S.N.R.
 Nelson, C. C., Red Oak (Atlantic City, N. J.).....Lt., U.S.N.R.
 Panzer, E. J. C., Stanton (Point Montara, Cal.).....Lt., U.S.N.R.
 Rost, G. S., Red Oak (Halstead, Kan.).....Capt., A.U.S.
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.).....Capt., A.U.S.

Muscatine County

Asthalter, R. W., Muscatine (Fort Meade, Md.).....1st Lt., A.U.S.
 Carlson, E. H., Muscatine (APO 180, San Francisco, Cal.).....Major, A.U.S.
 Goad, R. R., Muscatine (Memphis, Tenn.).....Comdr., U.S.N.R.
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa).....Major, A.U.S.
 Lindley, E. L., Muscatine (APO 6, San Francisco, Cal.).....Capt., A.U.S.
 Muhs, E. O., Muscatine (APO 678, New York, N. Y.).....Major, A.U.S.
 Norem, Walter, Muscatine (APO, Miami, Fla.).....Capt., A.U.S.
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.).....Capt., A.U.S.
 Sywassink, G. A., Muscatine (APO 488-"Y" Forces, New York, N. Y.).....Lt. Col., A.U.S.
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.).....Lt. Col., A.U.S.

O'Brien County

Getty, E. B., Primghar (APO 153, New York, N. Y.).....Capt., A.U.S.
 Hayne, W. W., Paullina (APO 638, New York, N. Y.).....Capt., A.U.S.
 Moen, S. T., Hartley (Camp Crowder, Mo.).....Lt. Col., A.U.S.

Osceola County

Kuntz, G. S., Sibley (APO 34, New York, N. Y.).....Capt., A.U.S.

Page County

Barnes, C. A., Shenandoah.....Major, A.U.S.
 Bauer, Frank, Shenandoah (APO New York, N. Y.).....A.U.S.
 Blackman, Nathan, Clarinda (Ft. Benj. Harrison, Ind.).....Major, A.U.S.

Brush, Frederick, Shenandoah (APO New York, N. Y.)...A.U.S.
 Burdick, F. D., Shenandoah (Denver, Colo.).....Capt., A.U.S.
 Burnett, F. K., Clarinda (Cheyenne, Wyo.).....Major, A.U.S.
 Rausch, G. R., Clarinda (Sioux City, Iowa).....Capt., A.U.S.
 Savage, L. W., Shenandoah (Fort Meade, Md.).....1st Lt., A.U.S.
 Schwidde, Tilford, Shenandoah (APO New York, N. Y.)...A.U.S.

Palo Alto County

Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.

Plymouth County

Bowers, C. V., LeMars (APO New York, N. Y.)...1st Lt., A.U.S.
 Fisch, R. J., LeMars (Denver, Colo.).....Capt., A.U.S.
 Foss, R. H., Remsen (Homestead, Fla.).....Capt., A.U.S.
 Wolfson, Harold, Kingsley (APO San Francisco, Cal.).....Lt. Col., A.U.S.

Pocahontas County

Blair, F. L., Jr., Fonda.....Lt., U.S.N.R.
 Herrick, T. G., Gilmore City (APO 218, New York, N. Y.).....Capt., A.U.S.
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.).....Capt., A.U.S.
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.).....Capt., A.U.S.
 Patterson, A. W., Fonda (Des Moines, Iowa).....Capt., A.U.S.

Polk County

Angell, C. A., Des Moines (APO 403, New York, N. Y.).....Capt., A.U.S.
 Barner, J. L., Des Moines (Atlanta, Ga.).....Major, A.U.S.
 Bates, M. T., Des Moines (Inyokern, Cal.).....Lt. Comdr., U.S.N.R.
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Bond, T. A., Des Moines (Oakland, Cal.).....Lt. Comdr., U.S.N.R.
 Bone, H. C., Des Moines (Arlington, Cal.).....Major, A.U.S.
 Bruner, J. M., Des Moines (El Paso, Texas).....Major, A.U.S.
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada).....Sqd. Leader, R.C.A.F.
 Chambers, J. W., Des Moines (APO 758, New York, N. Y.).....Capt., A.U.S.
 Chase, W. B., Jr., Des Moines (Bremerton, Wash.).....Lt. Comdr., U.S.N.R.
 Clark, G. E., Jr., Des Moines.....Capt., A.U.S.
 Connell, J. R., Des Moines.....Major, A.U.S.
 Corn, H. H., Des Moines (APO 9281, San Francisco, Cal.).....Capt., A.U.S.
 Coughlan, D. W., Des Moines (APO 689, New York, N. Y.).....Major, A.U.S.
 Crowley, D. F., Jr., Des Moines (Manchester, N. H.).....Major, A.U.S.
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.).....Capt., A.U.S.
 Decker, H. G., Des Moines (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 Downing, A. H., Des Moines (Clinton, Iowa).....Capt., A.U.S.
 Elliott, O. A., Des Moines (La Junta, Colo.).....Capt., A.U.S.
 Ellis, H. G., Des Moines.....Capt., A.U.S.
 Ervin, L. J., Des Moines (Victoria, Texas).....Lt. Col., A.U.S.
 Fleck, W. L., Des Moines (Ft. Howard, Md.).....Lt. Col., A.U.S.
 Fried, David, Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Fracasse, John, Des Moines.....1st Lt., A.U.S.
 Gerchek, E. W., Des Moines.....Capt., A.U.S.
 Glomset, D. A., Des Moines.....Capt., A.U.S.
 Goldberg, Louie, Des Moines (APO 926, San Francisco, Cal.).....Capt., A.U.S.
 Gordon, A. M., Des Moines (APO 367, New York, N. Y.).....Capt., A.U.S.
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Greek, L. M., Des Moines (APO 758, New York, N. Y.).....Capt., A.U.S.
 Gurau, H. H., Des Moines (Austin, Texas).....Capt., A.U.S.
 Harris, D. D., Des Moines (Gulfport, Miss.).....Lt. Comdr., U.S.N.R.
 Harris, H. L., Des Moines (Salina, Kan.).....1st Lt., A.U.S.
 Hess, John, Jr., Des Moines.....1st Lt., A.U.S.
 Johnston, C. H., Des Moines (Spokane, Wash.).....Lt. Col., A.U.S.
 Kast, D. H., Des Moines (Fort Stevens, Ore.).....Capt., A.U.S.
 Kelley, E. J., Des Moines (Columbus, Ohio).....Comdr., U.S.N.R.
 Kirch, W. A. W., Des Moines (Astoria, Ore.).....Lt. Comdr., U.S.N.R.
 Landis, S. N., Des Moines (West Palm Beach, Fla.).....1st Lt., A.U.S.
 La Tona, Salvatore, Des Moines.....1st Lt., A.U.S.
 Lederman, James, Des Moines.....1st Lt., R.C.A.
 Lehman, E. W., Des Moines (APO 70, San Francisco, Cal.).....Major, A.U.S.
 Losh, C. W., Jr., Des Moines.....Capt., A.U.S.
 Lovejoy, E. P., Des Moines (Norman, Okla.).....Comdr., U.S.N.R.
 Maloney, P. J., Des Moines (Fort Lewis, Wash.).....1st Lt., A.U.S.
 Marquis, G. S., Des Moines (Brooklyn, N. Y.).....Comdr., U.S.N.R.
 Martin, L. E., Des Moines (Helena, Ark.).....1st Lt., A.U.S.
 Matheson, J. H., Des Moines (San Leandro, Cal.).....Lt. Comdr., U.S.N.R.
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.).....Capt., A.U.S.
 McCoy, H. J., Des Moines (Great Lakes, Ill.).....Comdr., U.S.N.R.

McDonald, D. J., Des Moines.....Major, A.U.S.
 McNamee, J. H., Des Moines.....Comdr., U.S.N.R.
 Mencher, E. W., Des Moines.....1st Lt., A.U.S.
 Merkel, B. M., Des Moines (Denver, Colo.).....Lt. Col., A.U.S.
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.).....Capt., A.U.S.
 †Morden, R. P., Des Moines (APO 635, New York, N. Y.).....Capt., A.U.S.
 Mumma, C. S., Des Moines (Los Angeles, Cal.).....Major, A.U.S.
 Murphy, J. H., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Nelson, A. L., Des Moines (Washington, D. C.).....Major, A.U.S.
 Noun, L. J., Des Moines (Newport, R. I.).....Lt. Comdr., U.S.N.R.
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.).....Lt., U.S.N.
 Overton, L. M., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Patton, B. W., Des Moines (Camp Robinson, Ark.).....1st Lt., A.U.S.
 Peisen, C. J., Des Moines (APO 887, New York, N. Y.).....Major, A.U.S.
 Penn, E. C., West Des Moines.....Capt., A.U.S.
 Pfeiffer, E. P., Des Moines.....Major, A.U.S.
 Phillips, A. B., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Porter, R. J., Des Moines.....Capt., A.U.S.
 Priestley, J. B., Des Moines (Swannanoa, N. C.).....Lt. Col., A.U.S.
 Robinson, V. C., Des Moines.....Major, A.U.S.
 Rotkow, M. J., Des Moines (Camp Atterbury, Ind.).....Capt., A.U.S.
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.
 Schlaser, V. L., Des Moines (Hutchinson, Kan.).....Lt., U.S.N.
 Shepherd, L. K., Des Moines.....Major, A.U.S.
 Shiffer, H. K., Des Moines.....Capt., A.U.S.
 Singer, P. L., Des Moines (Camp Grant, Ill.).....1st Lt., A.U.S.
 Skultety, J. A., Des Moines (Fleet PO, San Francisco, Cal.).....P. A. Surg., U.S.P.H.S.
 Smith, H. J., Des Moines (Chicago, Ill.).....Lt. Comdr., U.S.N.R.
 Smith, R. T., Des Moines (APO 719, San Francisco, Cal.).....Capt., A.U.S.
 *Sodgrass, R. W., Des Moines (APO 9528, New York, N. Y.).....Capt., A.U.S.
 Sohm, H. A., Des Moines.....Comdr., U.S.N.R.
 Sorensen, R. M., Des Moines (Topeka, Kan.).....Major, U.S.P.H.S.
 Springer, F. A., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Stearns, A. B., Des Moines (Denver, Colo.).....Major, A.U.S.
 Stitt, P. L., Des Moines (Seattle, Wash.).....Lt. (jg), U.S.N.R.
 Toubes, A. A., Des Moines (APO 635, New York, N. Y.).....Capt., A.U.S.
 Turner, H. V., Des Moines (San Antonio, Texas).....Capt., A.U.S.
 Updegraff, Thomas, Des Moines (APO San Francisco, Cal.).....Capt., A.U.S.
 Van Hale, L. A., Des Moines (Des Moines, Iowa).....Major, A.U.S.
 Wagner, E. C., Des Moines (APO 1009, San Francisco, Cal.).....Capt., A.U.S.
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

Pottawattamie County

Dean, A. M., Council Bluffs (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 Edwards, C. V., Council Bluffs (Pensacola, Fla.).....Lt. Comdr., U.S.N.R.
 Floersch, E. B., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Hennessy, J. D., Council Bluffs (Clinton, Okla.).....Lt. Comdr., U.S.N.R.
 Jensen, A. L., Council Bluffs (Ft. Lewis, Wash.).....Lt. Col., A.U.S.
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.).....Lt., U.S.N.R.
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.).....Major, A.U.S.
 Martin, L. R., Council Bluffs (Auburn, Cal.).....Capt., A.U.S.
 Mathiasen, H. W., Neola (Alexandria, La.).....Capt., A.U.S.
 Mathiasen, J. W., Council Bluffs (Patterson Field, Ohio).....Capt., A.U.S.
 Moskovitz, J. M., Council Bluffs (APO 887, New York, N. Y.).....Capt., A.U.S.
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.).....Major, A.U.S.
 Sternhill, Isaac, Council Bluffs (Camp Crowder, Mo.).....Capt., A.U.S.
 Treynor, J. V., Council Bluffs (Chicago, Ill.).....Comdr., U.S.N.R.
 West, A. G., Council Bluffs (APO 230, New York, N. Y.).....Capt., A.U.S.
 Wieseler, R. J., Avoca (McChord Field, Wash.).....A.U.S.
 Wurl, O. A., Council Bluffs (APO 887, New York, N. Y.).....Lt. Col., A.U.S.

Poweshiek County

Brobyn, T. E., Grinnell (APO 18593, New York, N. Y.).....Major, A.U.S.
 Korfmacher, E. S., Grinnell (APO 923, San Francisco, Cal.).....Capt., A.U.S.
 Somers, P. E., Grinnell (Denver, Colo.).....1st Lt., A.U.S.

Ringgold County

Seaman, C. L., Mount Ayr (Fort Smith, Ark.).....Major, A.U.S.

Sac County

Bassett, G. H., Sac City (Mobile, Ala.).....Lt. Comdr., U.S.N.R.
 Evans, W. I., Sac City (APO 9212, New York, N. Y.).....Capt., A.U.S.
 Klockslem, R. G., Odebolt (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Neu, H. N., Sac City.....Lt. Col., A.U.S.

Scott County

†Baker, R. W., Davenport (APO 511, New York, N. Y.).....Capt., A.U.S.
 Balzer, W. J., Davenport.....Capt., A.U.S.
 Bishop, J. F., Davenport (Camp Wheeler, Ga.).....Major, A.U.S.
 Block, L. A., Davenport (Cambridge, Ohio).....Major, A.U.S.
 Boyer, U. S., Davenport (Rock Island, Ill.).....Lt. Col., A.U.S.
 Brown, M. J., Davenport (APO 562, New York, N. Y.).....Lt. Col., A.U.S.
 Carey, E. T., Davenport (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.
 Christiansen, C. C., Dixon (APO 961, San Francisco, Cal.).....Capt., A.U.S.
 Coleman, Tom, Davenport (APO 230, New York, N. Y.).....Capt., A.U.S.
 Cummins, G. M., Jr., Davenport (Fort Custer, Mich.).....Capt., A.U.S.
 Decker, C. E., Davenport (APO 321, San Francisco, Cal.).....Major, A.U.S.
 Evans, H. J., Davenport (Daytona Beach, Fla.).....Capt., A.U.S.
 Gibson, P. E., Davenport (Palm Springs, Cal.).....Major, A.U.S.
 Goenne, Wm., Jr., Davenport (APO 91, New York, N. Y.).....Capt., A.U.S.
 Hurevitz, H. M., Davenport.....Major, A.U.S.
 Hurteau, Everett, Davenport (APO 647, New York, N. Y.).....Capt., A.U.S.
 Hurteau, W. W., Davenport (Camp Berkeley, Texas).....Major, A.U.S.
 Kimberly, L. W., Davenport (Oak Ridge, Tenn.).....Capt., A.U.S.
 Krakauer, Max, Davenport (APO 758, New York, N. Y.).....Capt., A.U.S.
 Kuhl, A. B., Jr., Davenport (Ft. Meade, Md.).....1st Lt., A.U.S.
 Neufeld, R. J., Davenport (APO 565, Unit I, San Francisco, Cal.).....Capt., A.U.S.
 Perkins, R. M., Davenport (APO 121B, New York, N. Y.).....Capt., A.U.S.
 Rendleman, Hugh, Davenport (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.
 Sheeler, I. H., Davenport (APO 350, New York, N. Y.).....Capt., A.U.S.
 Shorey, J. R., Davenport (APO 204, New York, N. Y.).....Capt., A.U.S.
 Sorenson, A. C., Davenport (Oakland, Cal.).....Comdr., U.S.N.R.
 Sunderbruch, J. H., Davenport.....Capt., A.U.S.
 Weinberg, H. B., Davenport (APO 72, San Francisco, Cal.).....Major, A.U.S.
 Zukerman, C. M., Bettendorf.....Capt., A.U.S.

Shelby County

Bigard, C. V., Harlan (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.
 Griffith, W. O., Shelby (APO 9490, New York, N. Y.).....Capt., A.U.S.
 McGowan, J. P., Harlan (La Jolla, Cal.).....Lt. Comdr., U.S.N.R.

Sioux County

Gleysteen, R. R., Alton (Oceanside, Cal.).....Comdr., U.S.N.
 Larson, M. O., Hawarden.....Lt. Col., A.U.S.
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.).....1st Lt., A.U.S.

Story County

Conner, J. D., Nevada.....Capt., A.U.S.
 Fellows, J. G., Ames (APO 451, New York, N. Y.).....Major, A.U.S.
 Lekwa, A. H., Story City (Treasure Island, Cal.).....Lt. Comdr., U.S.N.R.
 McFarland, G. E., Jr., Ames (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Sperow, W. B., Nevada.....Comdr., U.S.N.R.

Tama County

Bezman, H. S., Traer (APO 902, San Francisco, Cal.).....Capt., A.U.S.
 Boller, G. C., Traer (Ft. Oglethorpe, Ga.).....Capt., A.U.S.
 Dobias, S. G., Chelsea (APO 86, San Francisco, Cal.).....Major, A.U.S.
 Havlik, A. J., Tama (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.
 Standefer, J. M., Tama (Des Moines, Iowa).....Lt., U.S.N.R.

Union County

Paragas, M. R., Creston (APO 442, San Francisco, Cal.).....Capt., A.U.S.

Wapello County

Brentan, Emanuel, Ottumwa (Camp Carson, Colo.).....Capt., A.U.S.
 Gilfillan, C. D. N., Eldon (Battle Creek, Mich.).....Capt., A.U.S.
 Howell, H. P., Ottumwa (San Rafael, Cal.).....Major, A.U.S.
 Hughes, R. O., Ottumwa (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
 Moore, G. C., Ottumwa (APO 314, New York, N. Y.).....Capt., A.U.S.
 Previtt, L. H., Ottumwa (San Antonio, Texas).....Major, A.U.S.

Selman, R. J., Ottumwa (El Paso, Texas).....Col., A.U.S.
 Struble, G. C., Ottumwa (Cleveland, Ohio).....Lt. Col., A.U.S.
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(*) Reported missing in action.
 (†) Reported deceased in service.
 (‡) Reported prisoner of war.

INFORMATION FOR DOCTORS RETURNING FROM MILITARY SERVICE

The directory of the American Medical Association has not been published during the war years, and consequently the information contained in the 1942 edition is very much out of date. The American Medical Association, through its *Journal* and its Directory Report Service, is trying to make up for this by keeping accurate records of physicians as they are released from military service, and has asked our help. We are providing, semi-monthly, a list of the doctors who have returned to the state from military service, but this does not give all of the information desired. The Association would like to have the full name of the physician; the date military service began and terminated; present address of residence and office, or a permanent home address to which mail may be directed; an indication of whether in practice, retired, or not in practice (on terminal leave, etc.); if serving a residency, beginning and termination date; and former permanent address if it is not the same as present address.

This information should be sent to the Directory Department, American Medical Association, 535 North Dearborn, Chicago 10, Illinois. It will help the directory department answer requests from doctors about former colleagues or medical officers met during service, and will be as helpful to them as to the department.

SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 2:45 p. m.

WSUI—Thursdays at 9:30 a. m.

December 5-6 Tuberculosis

Harold C. Black, M.D.

December 12-13 Smallpox and Diphtheria

Joseph B. Thornell, M.D.

December 19-20 Winter Health Hazards

Laydon S. Wentworth, M.D.

December 26-27 Musical Selections

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The JOURNAL
of the
Iowa State Medical Society

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1945

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WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

President—MRS. SOREN S. WESTLY, Manly

President-Elect—MRS. MARION H. BRINKER, Jefferson

Secretary—MRS. KEITH M. CHAPLER, Dexter

Treasurer—MRS. HARRY W. DAHL, Des Moines

FALL MEETING OF THE BOARD OF DIRECTORS

The fall meeting of the Board of Directors of the Woman's Auxiliary to the Iowa State Medical Society was held in Des Moines at Grace Ransom's Tea Room at 10:45 a. m., October 25, 1945. Thirteen members were present.

The meeting was called to order by the president, Mrs. S. S. Westly. The treasurer reported a total of \$409.65 on deposit. Mrs. A. E. Merkel reported the organization of four new counties.

Mrs. Daniel J. Glomset, reporting for Public Relations, urged that her Committee and the Program Committee work together in behalf of the Field Army for Cancer. Mrs. S. S. Westly, as Lt. Commander for the state, has done outstanding work. The three and one-half million dollars contributed as a national effort in the spring of 1945 brought this enterprise to the attention of the public as never before.

Mrs. Glomset stressed the fact that Dr. E. G. Zimmerer, Director of the Division of Cancer Control of the Iowa State Department of Health, may be called upon for study material and advice in regard to tumor clinics, as well as lectures on the subject.

Mrs. M. H. Brinker of Jefferson gave an enthusiastic report of the new Greene County Auxiliary with its twenty members.

The resignation of Mrs. A. E. Merkel, President-Elect, was accepted with regret. Mrs. M. H. Brinker, first vice president, was elevated to the office of President-Elect. Mrs. Fred Moore of Des Moines, Program Chairman, was chosen First Vice President.

It was moved by Mrs. E. T. Warren of Stuart to amend the second line of Section 8, Article IV of the Constitution by inserting the word "President-Elect" after the word "President," and the same insertion in line five after the word "President." The motion was carried.

Dr. Martin I. Olsen, President of Iowa Medical Service and chairman of the special committee appointed by the Iowa State Medical Society to study and draw up proposals of prepayment plans, spoke to the Auxiliary representatives in regard to the new company, Iowa Medical Service. He emphasized the social aspects of the program and the necessity for providing medical care for the low income groups. Blue Cross has enjoyed astounding success and will be offered along with Iowa Medical Service

through the same selling agency. However, the medical profession will retain control of the medical portion of the program. Dr. Olsen requested the understanding and cooperation of the Auxiliary in interpreting and furthering the program which has been accepted by the Iowa medical profession.

Mrs. K. M. Chapler

Note—Mrs. Peter W. Beckman of Perry has resigned as State Chairman for *Hygeia*. Mrs. William V. Thornburg of Guthrie Center has been appointed as her successor.

Dallas-Guthrie Society

The Woman's Auxiliary to the Dallas-Guthrie Medical Society met with the doctors for a luncheon at the Presbyterian Church in Panora October 18. Following the luncheon a business meeting was held at the Masonic Hall with eight members and four guests present. Mrs. K. M. Chapler, President, conducted the business meeting. Reports from all standing committees were given, and the following officers were nominated for 1946: Mrs. E. J. Butterfield of Dallas Center, president; Mrs. A. J. Ross of Perry, president-elect; Mrs. C. R. Osborn of Dexter, first vice president; Mrs. J. M. Margolin of Perry, second vice president; Mrs. H. W. Smith of Woodward, secretary; and Mrs. W. V. Thornburg of Guthrie Center, treasurer.

The program was under the leadership of Mrs. C. E. Porter of Redfield who gave brief reviews of the articles *Medicine* and *Medical Education* in the Postwar Era from the *Journal of the Iowa State Medical Society*, *Your Great Grandmother Used Penicillin* from *Woman's Magazine*, and *Sister Kenny Controversy* from *Cosmopolitan*. She then introduced Miss Florence Masters, missionary of the Methodist Church and business manager of E. T. C. M. Hospital, Kolar, Mysore State, India. Miss Masters' talk was most interesting and comprehensive, and was well given and received.

Mrs. P. W. Beckman

Polk County

The Woman's Auxiliary to the Polk County Medical Society met at Younkers Tea Room in Des Moines October 26 with forty-three members and guests present. Following the one o'clock luncheon, Mrs. Russell Doolittle, President, conducted a short business meeting. Committee reports were given.

Mrs. Robert Parker, *Hygeia* Chairman, reported having placed the magazine in each of Des Moines' forty-three schools. The Auxiliary voted to continue funds for subscriptions in the Locust Street USO, Roadside Settlement, South Side Community House, Salvation Army, Jewish Community Center, Y.M.C.A., and Y.W.C.A.

Mrs. Charles Ryan reported that there is still a need for services at the USO and members of the Auxiliary might still contribute to the fund.

Mrs. Doolittle introduced Mrs. S. S. Westly of Manly, State President of the Auxiliary, who was honor guest at the luncheon. Mrs. Westly stated that over \$12,000 has been raised for the Cancer Drive. She suggested that one program devoted to the study of tropical diseases might prove very interesting. She closed her remarks by quoting an "Ode to Doctors' Wives."

The remainder of the afternoon was spent playing bridge.

WHO WALK ALONE

When the Spanish American War was declared in 1898, there was a young man in college who, like many of his friends, volunteered for service. He was sent to the Philippines where he saw good and bad alike. Came the armistice, and he returned to his home town and eventually took over the business left by his father. He was a persevering and far-sighted young fellow and prospered mightily. Occasionally, he had dreams of a pretty black-eyed Senorita whom he had known in the Islands, but even this dream vanished after he met a sprightly, intelligent American girl to whom he became engaged. Their new home was rising rapidly in accordance with scheduled plans when an accident brought about a most peculiar circumstance.

Ned, for that was his name, discovered he had a spot on his arm which had no feeling whatsoever. The thought of that spot became an obsession with him and the failure of his home physician to diagnose it added to his mental agony. Then came the day when another similar spot appeared and his doctor recommended him to a specialist in a city. Grappling with a dread suspicion, yet hoping beyond hope, he sought more medical aid, and in too short a time, his suspicions were verified.

Ned was a leper. How he had become a victim, he was never quite sure, except that he had been billeted in an Island home for a time during his military service. And now, after nine happy, successful, fruitful years, he must revamp not only his whole life, but his mode of thinking, and still hold on to his sanity and the natural desire to live. He had one last pathetic meeting with his only brother and acquired some of the necessities for living, and then went to New York where he was under treatment for a year, during which time there was no improvement whatsoever. He allowed his family to

believe him dead in order to spare them obsessions in the future, and voluntarily embarked for Culion, that island in the Philippines two hundred miles south of Manila where lives a colony of lepers.

During the twenty-five years that Ned was a degenerative leper, there were times when he sunk mentally as far as a man can possibly go without suicide, but somehow he always managed to get hold of himself. Being the only American on Culion, he was able to bring untold blessings to the natives through his past business experience and ingenuity. Through him, lepers who were still able to work found themselves again. For the first time the Island had electric lights, refrigeration, and a fishery which netted a pretty annual sum for all the workers.

At the end of the twenty-five years, Ned appraised his own life in terms of a normal man's life under normal circumstances. He had established a lucrative business from which he derived a tidy income. He owned his own home, and had \$20,000 in the bank; and most of all, he had learned in spite of tremendous odds that "Whosoever will save his life, shall lose it."

Never in our experience have we had the inspirational reading which we derived from *Who Walk Alone* by Perry Burgess. Ned's heroism is in a class by itself, yet quiet and so unassuming. Perry Burgess's expert handling of Ned's life and his notes on Hansen's disease (leprosy) should be most revealing to the public who have only horror without knowledge of this malady so seldom seen in our own country. Mr. Burgess has been National Director of the Leonard Wood Memorial (American Leprosy Foundation) for fifteen years and President and Executive Officer of that Foundation for the last decade.

Here is Ned's triumphal assertion from the last chapter of the book: "Alone I have looked back over those years of life in death . . . What did they bring? First, torture—a kind of madness. Then a return to sanity, not the sanity I had known, but one related to my new world within a world. Kindness, Carita, that memory overlays all the rest. Kindness to those of us stricken, from those who chose to minister to us. Untiring doctors and nurses, imbued with the spirit of healing, contacting us who were a menace, risking infection, trying only to help. Out of this kindness, wonder! For you and I have been permitted to see the beginning of a miracle. It was coming, the relief sought for thousands of years. At first so painful that it could hardly be endured. Then mitigated, little by little, but still calling for endurance against—a chance. Not a sure cure but the chance of arresting the progress of the living death. We watched hundreds of men, women and children leave us and our little city of the doomed to return to the normal world . . ."

What do we know of trouble?

Mrs. K. M. Chapler

HISTORY OF MEDICINE IN IOWA

Edited by the Historical Committee

DR. WALTER L. BIERRING, Des Moines, Chairman

DR. HENRY G. LANGWORTHY, Dubuque, *Secretary* DR. CHARLES L. JONES, Gilmore City

DR. CLYDE A. HENRY, Farson

DR. LESTER C. KERN, Waverly

Medical History of Wapello County

CLYDE A. HENRY, M.D., Farson

PART V

(Continued from last month)

WAPELLO COUNTY PHYSICIANS IN WORLD WAR II



Upper, left to right: Lt. Col. Sidney Brody, Lt. Col. Gilbert C. Struble, Col. Ralph J. Selman, Comdr. Robert O. Hughes, Comdr. William N. Whitehouse.
Center: Major Leland H. Prewitt, Capt. Gage C. Moore.
Lower: Capt. Clarence D. N. Gilfillan, Capt. Emanuel Brentan, Lt. (jg) Wilson C. Wolfe, Capt. Charles L. Worley, Capt. Frederick L. Nelson, Jr.

Sidney Brody, Lt. Col., M.C., A. U. S., Ottumwa, was born March 28, 1912, in Ottumwa, Iowa, where he received his early education in the public schools. Medical degree, University of Iowa College of Medicine, 1937. Returned to Ottumwa and successfully engaged in the practice of medicine and surgery until June, 1942, when he entered the service. After completing his service in the North African and Corsican campaigns, he was returned to the United States in November, 1944, for special training at Ft. Leavenworth. Recently received his discharge and has resumed practice in Ottumwa. Married Marie Tweedell, April, 1938; has children.

Gilbert C. Struble, Lt. Col., M.C., A. U. S., Ottumwa (Cleveland, Ohio), was born in 1907, and received the degree of Doctor of Medicine from the University of Nebraska College of Medicine in 1930. Specializes in OALR; member American Board of Ophthalmology. He practiced medicine with his father in Nebraska before locating in Ottumwa. Married; has one child.

Ralph J. Selman, Col., M.C., A. U. S., Ottumwa (El Paso, Texas), was born in Iowa in 1887, son of Dr. T. J. Selman. He received the Doctor of Medicine degree from Keokuk Medical College, College of Physicians and Surgeons in 1908. He

came to Wapello County in 1914, locating at Blakesburg, where he practiced with his father until the latter's death in 1933. In 1935 he moved to Ottumwa, serving two terms as county physician. Having served twenty-two months in World War I, he continued as a Reserve Officer until February 3, 1941, when he was called to active service in World War II. Married, and has children.

Robert O. Hughes, Lt. Comdr., M.C., U. S. N. R., Ottumwa (Fleet PO, San Francisco, California), was born November 14, 1901. Received his degree of Doctor of Medicine in June, 1928, from the State University of Iowa College of Medicine. Located in Ottumwa in 1930, specializing in pediatrics. Entered military service in 1942. Married Gladys Peterson April 10, 1925; has two daughters.

William N. Whitehouse, Comdr., M.C., U. S. N. R., Ottumwa (Fleet PO, San Francisco, California), was born March 17, 1901, on a farm near Cherokee, Iowa. Received his early education in the Cherokee public schools. Attended the University of Illinois two years, and received his Doctor of Medicine degree from the University of Iowa College of Medicine in 1927. Interned at Denver General Hospital and served obstetric residency at Buffalo, N. Y. Practiced in Ottumwa several years before entering military service. Married Mildred Alice Keller September 1, 1927, and has three children.

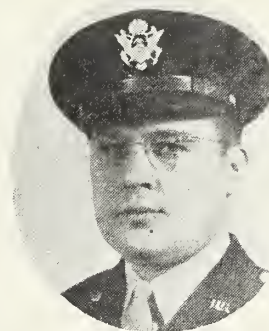
Leland Howard Prewitt, Major, M.C., A. U. S., Ottumwa (San Antonio, Texas), was born in Des Moines, Iowa, November 19, 1898, the son of H. D. and Caroline (Johnson) Prewitt. At the age of nine, he moved with his parents to Ottumwa, Iowa, where he attended the public schools. He received the B.A. degree at Iowa Wesleyan College, Mt. Pleasant, and the M.A., Ph.D., and M.D. degrees at the State University of Iowa. After receiving his medical degree in 1928, he interned first in General Hospital, Denver, then at Barnes University, St. Louis, spending three years in the two institutions. He then entered New York Medical Center for postgraduate work in OALR. Married Marian Rambo March 23, 1939; has one child.

Gage C. Moore, Capt., M.C., A. U. S., Ottumwa (APO 314, New York, New York) was born April 23, 1906. He received his degree of Doctor of Medicine from the State University of Iowa College of Medicine in 1934. Located in Ottumwa in 1936. Entered military service in 1942. Married March 26, 1932, and has two daughters.

Clarence D. N. Gilfillan, Capt., M.C., A. U. S., Eldon (Battle Creek, Michigan) was born Janu-

ary 1, 1906, at Mt. Pleasant, Iowa, where he received his early education. He was graduated in 1933 from the State University of Iowa College of Medicine. Practiced at Eldon from 1939 until April, 1942, when he entered military service. Married; has one child.

Homer Preston Howell, Major, M.C., A. U. S., Ottumwa (San Rafael, California) was born in Ottumwa, Iowa, September 16, 1910. Received his early education in the Ottumwa schools and was graduated B.S. from Northwestern University in 1932, and in 1937 graduated M.S. and M.D. from the same institution. Interned in Denver



Major Homer P. Howell

General Hospital and served residency in Memphis Eye, Ear, Nose and Throat Hospital; passed Board of Ophthalmology in 1941. Entered service in June, 1942, with rank of Captain; was promoted to Major in June, 1944. Married Lt. Margaret Clare, June, 1944; has one child.

Emanuel Brentan, Capt., M.C., A. U. S., Ottumwa (Camp Carson, Colorado) was born in 1911. He was graduated in 1939 from the State University of Iowa College of Medicine and located in Ottumwa in November, 1940. Entered military service March 6, 1942. Went overseas November 7, 1942, serving in Germany and other sectors along the Western Front. Married.

Wilson C. Wolfe, Lt. (jg), M.C., U. S. N. R., Ottumwa, was born in Coon Rapids, Iowa, March 1, 1912. Received his early education in the Coon Rapids public schools; after two years at Simpson College he entered the State University of Iowa, from which he received the M.D. degree in 1937. Interned in the Iowa Lutheran Hospital, Des Moines, later locating in Ottumwa. He entered military service January 1, 1944, serving one year, and was honorably discharged in January, 1945. Married Elizabeth L. Smith of Omaha, Nebraska, September 1937; has two children.

Charles L. Worley, Capt., M.C., A. U. S., Ottumwa, was born in Emmetsburg, Iowa, November 17, 1898. He was the son of Dr. Charles G. and

THE JOURNAL BOOK SHELF

BOOKS RECEIVED

THE OSSEOUS SYSTEM, A Handbook of Roentgen Diagnosis—By Vincent W. Archer, M.D., Professor of Roentgenology, University of Virginia Department of Medicine, The Year Book Publishers, Inc., Chicago, 1945. Price, \$5.50.

SYNOPSIS OF GENITOURINARY DISEASES—By Austin I. Dodson, M.D., Professor of Genitourinary Surgery, Medical College of Virginia; Genitourinary Surgeon to the Hospital Division, Medical College of Virginia; Genitourinary Surgeon to Crippled Children's Hospital; Urologist to St. Elizabeth's Hospital; Urologist to St. Luke's Hospital and McGuire Clinic. Fourth edition. The C. V. Mosby Company, St. Louis, 1945. Price, \$3.50.

CLINICAL PARASITOLOGY—By Charles Franklin Craig, M.D., Col., A.U.S. (Retired), Formerly Director, Army Medical School, and Assistant Commandant, Army Medical Center, Washington, D. C., Emeritus Professor of Tropical Medicine in the Tulane University of Louisiana, New Orleans; and ERNEST CARROLL FAUST, Ph.D., Professor of Parasitology in the Department of Tropical Medicine, Tulane University of Louisiana, New Orleans, Consultant to the Secretary of War, Army Epidemiologic Board on Epidemic and Tropical Diseases, Consultant U. S. Public Health Service, Honorary Consultant, Army Medical Library. Fourth edition, thoroughly revised. Lea & Febiger, Philadelphia, 1945. Price, \$10.00.

THE 1944 YEAR BOOK OF INDUSTRIAL AND ORTHOPEDIC SURGERY—Edited by Charles F. Painter, M.D., Orthopedic Surgeon to the Massachusetts Women's Hospital and Beth Israel Hospital, Boston. The Year Book Publishers, Chicago, 1945. Price, \$3.00.

A MANUAL OF SURGICAL ANATOMY—Prepared under the Auspices of the Committee on Surgery of the Division of Medical Sciences of the National Research Council, by Tom Jones and W. C. Shepard. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

DISEASES OF THE BREAST—By Charles F. Geschickter, M.D., Lt. Comdr., M.C., U.S.N.R., Director of the Francis P. Garvan Cancer Research Laboratory, Pathologist, St. Agnes Hospital, Baltimore; with Special Section on Treatment in Collaboration with MURRAY M. COPELAND, M.D., Instructor in Surgery, Johns Hopkins Medical School, Visiting Surgeon and Assistant Oncologist, University Hospital, University of Maryland Medical School, Visiting Oncologist, Baltimore City Hospital. Second edition. J. B. Lippincott Company, Philadelphia, 1945. Price, \$12.00.

PHYSICAL DIAGNOSIS—By Ralph H. Major, M.D., Professor of Medicine, The University of Kansas, Kansas City, Kansas. Third edition, revised. W. B. Saunders Company, Philadelphia, 1945. Price, \$5.00.

CLINICAL BIOCHEMISTRY—By Abraham Cantarow, M.D., Professor of Physiological Chemistry, Jefferson Medical College, formerly Associate Professor of Medicine, Jefferson Medical College, and Assistant Physician, Jefferson Hospital; and MAX TRUMPFER, Ph.D., Lt. Comdr., H(S), U.S.N.R., Naval Medical Research Institute, National Naval Medical Center, Bethesda, Md., formerly in charge of the Laboratories of Biochemistry of the Jefferson Medical College and Hospital. Third edition, revised. W. B. Saunders Company, Philadelphia, 1945. Price, \$6.50.

BOOK REVIEWS

TREATMENT IN GENERAL PRACTICE

By Harry Beckman, M.D., Professor of Pharmacology, Marquette University, School of Medicine, Milwaukee, Wisconsin. Fifth edition, reset. W. B. Saunders Company, Philadelphia, 1945. Price, \$10.00.

The first edition of this book published some fifteen years ago was written by Dr. Beckman to supplement the teaching of therapeutics to the average student in the average medical school, which he felt was neither thorough nor adequate.

In this new edition, as in its predecessors, he discusses one by one the principal diseases to which the human flesh is heir and describes its own particular therapy. In doing this he draws largely on the experiences of prominent practitioners all over the world, many times quoting them verbatim in describing their successes and failures with certain methods of treatment. He then summarizes the result by giving his own opinion as to what he considers the best method of treating the disease under consideration.

Each edition of this splendid text has been better than its immediate predecessor, and this last fifth edition is premier of them all.

In this volume he has been cognizant of the rapidly changing therapeutic methods, and the book is strictly up to date with many of the subjects entirely rewritten. He presents new, superior technics for handling penicillin, the group of sulfa drugs, and many other new products. He also mentions many new diseases which have occurred and will occur

more frequently in the United States due to the great migrations the war has brought forth. All in all, he mentions something like thirty new clinical entities that have not been mentioned in the former editions.

This text will continue to be first choice as a reference book in the treatment of disease by the average practitioner whose library contains a copy.

J. B. K.

BEDSIDE CLINICS

By Francis D. Murphy, M.D., Professor and Head of the Department of Medicine of the Marquette University Medical School and Clinical Director of the Milwaukee County General Hospital and Emergency Unit. Volume I. Marquette University Press, Milwaukee, 1945.

Inquiry among many of his friends and former students leads one to the belief that Francis D. Murphy, M. D., is highly respected for his abilities and revered for his teaching ability and his attitude toward the student. Grounds for this feeling is manifest in Volume I of his Bedside Clinics, which shows a fine comprehension of the medical problems presented as well as the faculty of showing the problem in its larger aspects and, in addition, giving the detailed essentials without being ultrascientific to a confusing degree.

To this rural reviewer, the most valuable item would be the use made of blood chemistry, sedimentation rate, and Schilling differentials, and the

valuable lessons in diagnosis drawn from them on actual cases. Dr. Murphy also brings out many useful diagnostic points which the average man would have to dig out by much reading of general texts. Each case is well worked out, including history, physical findings, laboratory observations, and treatment, and the discussion of the case is always worthwhile.

The cases presented are such as will be met by any urban or rural physician, and it is the opinion of the reviewer that these Murphy Bedside Clinics may well come to fill a place comparable to those of his namesake, John B., whose Surgical Clinics provided such delightful reading in the early days of this century.

J. R. D.

NEW DIRECTIONS IN PSYCHOLOGY

By Samuel Lowy, M.D. Introduction by Herbert Read. Emerson Books, New York, 1945. Price, \$3.00.

Psychiatrists, social scientists, and anyone interested in social psychology will find this book stimulating of thought and well worth the time required to read its one hundred and eighty pages. It is not light reading and requires study, and so it requires more than the usual amount of time for its thorough enjoyment. It is social psychology applied to the individual rather than to the group as is most social psychology of today.

The author shows a broad understanding of the individual and his needs and motivations. The following from the chapter on After the Second World War illustrates his attitude: "A narrow outlook is essentially indicative of an arrested development of the emotional spheres, and is expressive of an only limited functional freedom of the mind. Hence the inclination of the narrow-minded person to limit the field of human tolerance and collaboration to a small number of fellowmen; he is unable spontaneously to embrace a wide circle of society with his faculty of love and appreciation."

Dr. Lowy believes that hatred and aggression are natural to man and cites Dr. Freud's statement: "Man is by nature aggressive, cruel, destructive, independently of all necessary and useful aims." Dr. Lowy states in his own words, "There is, apparently, a natural inclination in everybody, though varying in degree, to hate. The prejudiced person essentially hates something in his own sub-consciousness; but he projects this evil within him on to another person, and vents his hatred on that external person."

The chapter on Interference With Others' Lives has many useful suggestions to everyone on practical living. Parents should read and profit by the chapters on Children and Parents, Marriage, and Sexuality in Its Cultural and Social Aspect, thereby being enabled to bring to their children a healthier mental attitude toward the restrictions and privileges of the married state.

The chapter on Religion and Churches is challenging to every person, whether believer or unbeliever,

to put his attitude toward religion to the test of its value to society as a constructive force for social good. The author makes a plea for religious tolerance and makes it the watchword of social improvement. He believes the majority of men of our era crave for some kind and some degree of metaphysical belief.

I cannot find myself in sympathy with Dr. Lowy's belief in the potency of a *State Authority* to guide and compel men to make intellectual and moral achievements. Some of us thought we had just completed a war to free the individual from domination by any State. It is doubtful if the State can ever produce intellectual or moral ends beyond (if even equal to) the composite of individual aims.

This book by a physician is written for the lay public, and as such should be enjoyed and appreciated by many physicians because it opens new and broader fields of thought and endeavor.

J. I. M.

RYPINS' MEDICAL LICENSURE EXAMINATIONS

Topical Summaries, Questions, and Answers.

Edited by Walter L. Bierring, M.D., Member, National Board of Medical Examiners, Secretary, Federation of State Medical Boards of the United States; with the collaboration of a Review Panel. Fifth edition, completely revised. J. B. Lippincott Company, Philadelphia, 1945. Price, \$6.00.

Because of his long experience in medical education and as Secretary of the Federation of State Medical Boards of the United States, Dr. Bierring is amply qualified to revise a work on medical licensure examinations. The preface to the first edition and the Philosophy of Examinations as set forth in Section I of the contents should be carefully read before one makes further excursion into succeeding chapters. Herein are set forth the reasons for medical licensure examinations and what is expected from both the examiner and the examinee. The subject matter is well arranged and concisely presented. Repetition has been avoided. As the author says, "Where a subject such as rabies, for example, has been covered in the chapter on Preventive Medicine, it is not repeated under the consideration of the filtrable viruses in Bacteriology."

In a final appraisal of this work one cannot avoid a speculative mood. What of medicine in the future? Will the aggregate of medical knowledge become so large as to make the acquisition of such knowledge, to say nothing of its application, almost a human impossibility? When we reach that stage, what will happen to medical education?

A. D. W.

MEDICAL OFFICERS

Please notify the Journal whenever your address changes. This will assure prompt delivery of each issue and will alleviate much of the present confusion in maintaining an accurate mailing list.

SOCIETY PROCEEDINGS

Black Hawk County

The regular monthly meeting of the Black Hawk County Medical Society was held in Waterloo Tuesday, November 20, at Black's Tea Room at 6:30 p.m. The guest speaker of the evening was William D. Paul, M.D., from the Department of Medicine of the State University of Iowa College of Medicine. Dr. Paul spoke on Gastroscopic Examinations of the Stomach and used lantern slides to demonstrate the common lesions.

H. A. Bender, M.D., President

Cerro Gordo County

The Cerro Gordo County Medical Society met in Mason City at Hotel Hanford Tuesday evening, November 13. Stuart C. Cullen, M.D., of the Department of Anesthesiology at the State University of Iowa College of Medicine, presented an interesting lecture on Nitrous Oxide Anesthesia.

Clinton County

The Clinton County Medical Society held its opening fall meeting in Clinton at Hotel Lafayette Thursday evening, October 18, at 6:30 o'clock. The scientific program consisted of a lecture on Poliomyelitis by William D. Paul, M.D., of the Department of Medicine at the State University of Iowa College of Medicine. Several physicians stationed at Schick General Hospital attended the meeting.

Dubuque County

The Dubuque County Medical Society held a testimonial dinner Tuesday evening, November 13, at the Bunker Hill Golf Club in honor of Dr. John C. Hancock of Dubuque, who had announced his retirement after forty-six years of active medical practice. The entire program was devoted to testimonials to Dr. Hancock, not only from officers and members of the Society but from several guests, old friends of the doctor, who also paid tribute to his record of service. A scroll was presented the doctor by the Society, setting forth his record, and an electric blanket was presented to him by his fellow practitioners as a farewell gift.

Greene County

The regular monthly meeting of the Greene County Medical Society was held at the Greene County Hospital in Jefferson Thursday evening, November 15, at 7:30 o'clock. The scientific program consisted of a discussion of Burns by Laurence C. Hanson, M.D., Jefferson.

J. R. Black, M.D., Secretary

Johnson County

The Johnson County Medical Society met in Iowa City at Hotel Jefferson Wednesday, November 7, at

6:00 p.m. Following the dinner and usual business meeting, Henry C. Sweany, M.D., Medical Director of Research Municipal Tuberculosis Sanatorium in Chicago, gave an interesting paper on Diagnostic Problems in a Chest Clinic. Discussion was opened by Leon H. Flancher, M.D., Director of the Division of Tuberculosis of the State Department of Health.

R. H. Flocks, M.D., Secretary

Osceola County

The Osceola County Medical Society honored Dr. Louis H. Heetland of Sibley at its meeting Friday evening, October 19. Dr. Heetland, who has completed fifty years of active medical practice in Osceola County, was presented the pin and certificate of membership of the Fifty Year Club.

Scott County

The regular meeting of the Scott County Medical Society was held in Davenport Tuesday, November 6, at 6:00 p.m. at the Lend-A-Hand Club. The annual election of officers was held with the following results: Dr. Harold J. Evans, president-elect; Dr. Lawrence A. Block, vice president; Dr. John H. Sunderbruch, secretary; Dr. Thomas W. McMeans, treasurer; Dr. William C. Goenne, delegate; and Dr. Harry H. Lamb, alternate. Dr. George Braunschlich, delegate, and Dr. Leslie V. Schroeder, alternate, will also serve during 1946, having been elected last year for a two year term. Dr. William C. Goenne was ratified as president for the coming year, succeeding Dr. Arthur A. Garside. All doctors are of Davenport with the exception of Dr. Schroeder, who is located in Walcott.

The scientific program consisted of an address on Treatment of Varicose Veins by Frank R. Peterson, M.D., Professor of Surgery at the State University of Iowa College of Medicine.

L. J. Miltner, M.D., Secretary

Wapello County

The Wapello County Medical Society held an open meeting in Ottumwa Tuesday evening, November 20, at the Wesley Methodist Church. The program, devoted to Alcoholics Anonymous, consisted of discussions by two representatives who told of the work of that organization.

Washington County

The annual turkey dinner of the Washington County Medical Society was revived at the Wellman Methodist Church Tuesday evening, November 6. During the war years the dinners were not held. There were fifty-eight persons in attendance, including all members of the Society, their wives, and guests.

Woodbury County

The November meeting of the Woodbury County Medical Society was held in Sioux City at the Martin Hotel Thursday evening, November 15, at 6:30 o'clock. Ruben Nomland, M.D., Professor of Dermatology at the State University of Iowa College of Medicine, spoke before the group on Diagnosis and Treatment of Common Skin Diseases in General Practice.

F. D. McCarthy, M.D., Secretary.

Iowa and Illinois Central District Medical Association

The fall meeting of the Iowa and Illinois Central District Medical Association was held Thursday evening, October 25, at the Blackhawk Hotel in Davenport. The scientific program was comprised of a short address on Medical Service Insurance by Gordon F. Harkness, M.D., of Davenport, and a lecture on The Office Management of Endocrine Disorders by James H. Hutton, M.D., of Chicago.

PERSONAL MENTION

The Journal is pleased to announce the release of the following physicians from active military duty:

Dr. Walter D. Abbott will resume his practice in Des Moines the first of December with offices in the Des Moines Building. Dr. Abbott, a Commander in the Navy Medical Corps, has been placed on an inactive status after having been on active duty since September 1942, most of which time was spent in the Pacific Theater.

Dr. Edward N. Anderson has returned to Iowa City following his release from active military duty. Dr. Anderson, a Major in the Army Medical Corps, served in the European Theater of War.

Dr. Gaylord R. Andre has resumed his practice in Lisbon following his release from active duty with the Army Medical Corps. Dr. Andre, a Lieutenant Colonel at the time of his release, recently returned from Europe.

Dr. Royal S. Anspach plans to resume his practice in Mitchellville. He recently received his discharge from the Army after having been on active duty since February 1941. Dr. Anspach held the rank of Lieutenant Colonel at the time of his release.

Dr. George H. Ashline has resumed his practice in Keokuk following his release from active duty in the Army Medical Corps. Dr. Ashline, a Captain at the time of his release, recently returned from Europe where he served in France and Germany.

Dr. Bernard C. Barnes has reopened his office in the Equitable Building in Des Moines after receiving his discharge from the Army Medical Corps. Dr. Barnes, who held the rank of Major at the time of his release, entered service in October 1942.

Dr. Harold C. Bastron has resumed his practice in Red Oak after more than four and a half years of service in the Mediterranean and South Pacific Theaters. Dr. Bastron, who held the rank of Major in the Army Medical Corps, was released from active duty on September 27.

Dr. Howard G. Beatty plans to resume his practice in Creston. He was recently released from active duty in the Army Medical Corps where he served as a First Lieutenant.

Dr. Albin C. Bergstrom has recently received his discharge from the Army Medical Corps and is resuming his practice in Missouri Valley. Dr. Bergstrom held the rank of Captain at the time of his release.

Dr. Worthey C. Boden has returned to Davenport following his release from active military duty and plans to resume his practice there. Dr. Boden, a Captain in the Army Medical Corps, recently returned from the European Theater.

Dr. Earl N. Bossingham has recently received his release from active duty after four and a half years of service in the Army Medical Corps, and plans to resume his practice in Clarinda. Dr. Bossingham held the rank of Major at the time of his release.

Dr. Eugene J. Boyd has returned to Iowa City where he is attached to the medical staff of the College of Medicine. Dr. Boyd, a Captain in the Army Medical Corps, recently returned from Europe.

Dr. Paul W. Brecher has resumed his practice in Storm Lake following his release from active military duty. Dr. Brecher entered the service in January 1941 and served in the Italian Theater since March 1944. At the time of his release, he held the rank of Lieutenant Colonel.

Dr. Addison W. Brown has reopened his office in the Bankers Trust Building in Des Moines after receiving his release from active duty. Dr. Brown, a Captain in the Army Medical Corps, entered military service in September 1942 and recently returned from Europe.

Dr. Otho C. Buxton, Jr., of Webster City has received his discharge and plans to resume his practice in the near future. Dr. Buxton, a Captain in the Army Medical Corps, served in the European Theater of War and was a prisoner of the Germans until early this year.

Dr. John W. Castell, who was located in Fairfield prior to his entry into military service, has received his discharge and plans to re-enter the practice of medicine in Iowa. Dr. Castell, who held the rank of Captain in the Army Medical Corps, has been on active duty more than three years.

Dr. James P. Clark has reopened his office in Estherville after being released from active military duty. Dr. Clark, a Major at the time of his release, served in the European Theater of War.

Dr. Patrick M. Cmeyla has returned to Sioux City after receiving his discharge from the Army Medical Corps. Dr. Cmeyla, a Captain at the time of his release, was captured on Bataan Peninsula when the Philippines fell to the Japanese and was held a prisoner of war for more than three years. He plans to resume his practice in Sioux City.

Dr. Robert M. Collins has been placed on an inactive status and plans to resume his practice with the Council Bluffs Clinic. Dr. Collins held the rank of Lieutenant Commander in the Navy Medical Corps at the time he was released from active duty.

Dr. Wayne K. Cooper, who prior to entering military service was attached to the College of Medicine in Iowa City, has received his discharge and become associated with Drs. Arthur W. Erskine and James W. Prouty in the Higley Building in Cedar Rapids. Dr. Cooper held the rank of Captain at the time of his release.

Dr. Thomas E. Corcoran has received his release from active duty and plans to resume his practice in Rock Rapids. Dr. Corcoran, a Captain in the Army Medical Corps, served in the European Theater of War and was a German prisoner for many months.

Dr. Donald L. Cross has resumed his practice in Coon Rapids. Dr. Cross was placed on an inactive status after serving as a Lieutenant in the Navy Medical Corps for three years, the latter part of which was spent in the Pacific Theater.

Dr. Ralph DeCicco has been released from active duty and plans to re-enter the practice of medicine in Iowa. Dr. DeCicco, who held the rank of Major at the time of his release, entered the Army Medical Corps in May 1941 and the greater part of his service was spent in the Pacific Theater.

Dr. Donald C. Deters, who formerly practiced in Schaller, has now been released from active duty in the Army Medical Corps and has become associated in the practice of medicine with a brother in St. Paul. Dr. Deters, who served in the European Theater, was a Captain at the time of his release.

Dr. Ralph A. Dorner has received his discharge and has returned to the University Hospitals in Iowa City. Dr. Dorner, a Captain in the Army Medical Corps, served in the European Theater of Operations.

Dr. Howard I. Down has resumed his practice in Sioux City after more than three years in the Army Medical Corps. Dr. Down served as a Lieutenant Colonel in the European Theater.

Dr. John S. Downing of Cedar Rapids has received his discharge and is now a resident physician at the Children's Hospital in Iowa City. Dr. Downing held the rank of Lieutenant Colonel in the Army Medical Corps at the time of his release.

Dr. John B. Dressler has resumed his practice in Ida Grove after having been on active duty with the Army Medical Corps since October 1942, most of which time was spent in the Pacific Theater. Dr. Dressler held the rank of Captain at the time of his release.

Dr. Abraham H. Dulmes has received his discharge from the Army Medical Corps and has reopened his office in Klemme. Dr. Dulmes served as a Captain in the European Theater for twenty-seven months.

Dr. Frank D. Edington has resumed his practice in Spencer after more than four years of active military duty. Dr. Edington, a Colonel in the Army Medical Corps, received his discharge in October.

Dr. John N. Elsworth has established an office in Harlan after obtaining his release from the Army Medical Corps. He entered military service in October 1940 and was a Captain at the time of his release.

Dr. Joseph E. Flynn, who was on the staff at University Hospitals in Iowa City prior to entering military service, has now received his discharge and is a member of the staff of the Columbia University College of Physicians and Surgeons in New York City. Dr. Flynn served as a Major in the Army Medical Corps.

Dr. Douglas N. Gibson has just recently returned to Des Moines after receiving his discharge from the Army Medical Corps. He entered military service in June 1943 and returned from the Pacific Theater in November 1945. Dr. Gibson held the rank of Lieutenant Colonel at the time of his release.

Dr. George W. Gilfillan has resumed his practice in Bloomfield after having been placed on an inactive status in the Navy Medical Corps. Dr. Gilfillan, who entered military service in September 1943, served as a Lieutenant Commander in the Pacific Theater.

Dr. Ludwig Gittler has resumed his practice in Fairfield after being released from active duty with the Army Medical Corps. Dr. Gittler served more than four years and held the rank of Lieutenant Colonel at the time of his release.

Dr. Ralph L. Gorrell has obtained his release from active duty with the United States Public Health Service and has returned to Clarion where he will resume the practice of medicine. Dr. Gorrell

was a Passed Assistant Surgeon at the time of his release.

Dr. Diedrich J. Haines has reopened his office in the Equitable Building in Des Moines after receiving his discharge from the Army Medical Corps. Dr. Haines, who held the rank of Captain, just recently returned from the Pacific Theater. He entered military service in August 1942.

Dr. Lawrence J. Halpin of Cedar Rapids has recently received his discharge and plans to resume his practice there soon. He served with the Army Medical Corps for over four and a half years and at the time of his release held the rank of Major.

Dr. Lauren J. Henderson has resumed his practice in Cedar Falls after serving five years in the Army Medical Corps. Dr. Henderson, a Major at the time of his release, spent twenty-seven months in the European Theater.

Dr. Luther C. Hickerson has returned to Brooklyn where he will resume the practice of medicine after serving more than three years in the Army. Dr. Hickerson, a Captain in the Medical Corps, was attached to the Eighth Air Force as a Flight Surgeon and spent eighteen months in England.

Dr. Paul W. Hogan has received his discharge from the Army Medical Corps and plans to resume his practice in Waukon. Dr. Hogan held the rank of Major at the time of his release.

Dr. Jay E. Houlahan has returned to Mason City after thirty-eight months of service in the Army Air Corps, twenty-five months of which were spent in Guatemala and Panama. He is resuming his association with Dr. Draper L. Long with offices in the Foresters Building. Dr. Houlahan served as a Captain in the Medical Corps.

Dr. Charles N. Hyatt has reopened his office in Humeston after four and a half years of active military duty. Dr. Hyatt served in the Pacific Theater as a Captain in the Army Medical Corps.

Dr. Charles W. Ihle, Jr., has received his discharge from the Army Medical Corps and plans to reopen his office in Cleghorn. Dr. Ihle held the rank of Lieutenant Colonel at the time of his release.

Dr. David W. James, who was located in Kamrar prior to entering military service, has now received his discharge and plans to take a refresher course before resuming his practice. Dr. James served as a Major in the Army Medical Corps.

Dr. John W. Jansonius, who practiced in Eldora before entering military service, has now received his discharge and plans to take some postgraduate work before resuming his practice. Dr. Jansonius, who held the rank of Captain at the time of his release, recently returned from Europe.

Dr. George D. Jenkins has announced the opening of his former office in the Farmers and Merchants Bank Building in Burlington after having received his discharge from active military duty. Dr. Jenkins held the rank of Colonel in the Army Medical Corps.

Dr. Harold O. Jirsa has received his discharge from the Army Medical Corps and plans to resume his practice in Cedar Rapids in the near future. Dr. Jirsa has been stationed in England for almost four years and just recently returned to the States. He held the rank of Lieutenant Colonel at the time of his release.

Dr. Clare C. Jones has just recently been released from active duty in the Navy Medical Corps and plans to resume his practice in Spencer in the near future. Dr. Jones served as a Lieutenant Commander in the Pacific Theater for two years.

Dr. Albert J. Jongewaard has resumed his practice in Jefferson after more than three years of service in the Navy. Dr. Jongewaard, a Commander in the Medical Corps, served in both the Pacific and Atlantic areas.

Dr. Ross C. King has recently received his discharge from the Army Medical Corps and plans to resume his practice in Clinton. Dr. King held the rank of Captain at the time of his release.

Dr. Milton F. Kiesau plans to reopen his office in Postville after having been released from active military duty. Dr. Kiesau, who held the rank of Major at the time of his discharge, entered service in June 1941. He spent the last eighteen months of his service in the European Theater.

Dr. Lyle W. Koontz has received his discharge from the Army Medical Corps and plans to resume his practice in Vinton after taking a refresher course in medicine at the State University in Iowa City. Dr. Koontz, a Captain at the time of his release, had more than two years of foreign service.

Dr. Leo H. LaDage has announced the reopening of his practice in Davenport, with offices in the Union Bank Building, after more than three years of active military duty. Dr. LaDage served as a Major in the Army Medical Corps and recently returned from the European Theater.

Dr. James W. Lannon, who was located in Clear Lake prior to entering military service, has received his discharge and plans to re-enter the practice of medicine in Iowa. Dr. Lannon held the rank of Captain at the time of his release.

Dr. Lester E. Larson has returned to Decorah where he will resume his medical practice after having been released from active duty with the Navy. Dr. Larson, a Commander in the Medical

Corps, has been in service three years and has just recently returned from the Pacific Theater.

Dr. Paul J. Leehey has received his discharge from the Army and has resumed his practice in Independence where he is associated with Dr. Benjamin B. Sells. Dr. Leehey entered military service in April 1941, serving in the Pacific Theater forty-six months. He held the rank of Major in the Medical Corps at the time of his release.

Dr. Edwin M. Limbert plans to resume his practice in the Council Bluffs Clinic on December 1. Dr. Limbert served for eighteen months in the European Theater as a Major in the Army Medical Corps.

Dr. John F. Loeck, who was located in Aurora prior to entry into military service, has received his discharge and announced the opening of an office in Independence. Dr. Loeck served as a Captain in the Army Medical Corps.

Dr. Carl J. Lohmann has returned to Burlington after having been released from active duty with the Army Medical Corps. Dr. Lohmann, who held the rank of Lieutenant Colonel, has just recently returned from twenty months of service in the Pacific area.

Dr. Julian E. McFarland has just been released from active duty with the Navy Medical Corps and plans to resume his practice in the McFarland Clinic in Ames. Dr. McFarland served as a Commander in the Pacific Theater.

Dr. Edson E. Moore of Osage, who has served more than three years in the Army Medical Corps, has recently returned from a period of service in Army general hospitals in England and on the Continent and was placed on inactive status December 1. Dr. Moore held the rank of Major at the time of his release.

Dr. Martin L. Mosher, Jr., who was located in West Branch prior to entering military service, has now received his discharge and plans to take some postgraduate work before resuming his practice. Dr. Mosher served as a Captain in the Army Medical Corps.

Dr. Arlo L. Murphey plans to resume his practice in Fredericksburg after having received his discharge from the Army Medical Corps. Dr. Murphey, who has been on active duty for more than three years, held the rank of Captain at the time of his release.

Dr. Charles A. Nicoll has reopened his office in Panora following his release from active military duty. Dr. Nicoll joined the Army Medical Corps in September 1942 and recently returned from service in the European Theater. He held the rank of Major at the time of his release.

Dr. Paul A. Nierling has returned to Cresco where he will resume his medical practice after more than three years of active duty with the Army Medical Corps. Dr. Nierling served as a Captain in the Pacific Theater of Operations.

Dr. James J. Noonan plans to resume his practice in Marshalltown after having been released from active military duty. Dr. Noonan held the rank of Lieutenant Colonel in the Army Medical Corps at the time of his release.

Dr. Maurice H. Noun has received his discharge from the Army Medical Corps after having been on active duty since September 1942. Dr. Noun, a Lieutenant Colonel at the time of his release, plans to resume his practice in Des Moines in the near future.

Dr. Harold E. O'Neal has resumed his practice in Tipton following his release from active military duty. Dr. O'Neal served in the Army Medical Corps for more than three years and held the rank of Lieutenant Colonel at the time of his release.

Dr. Ralph T. Paige has returned to LaPorte City and will reopen his office there in the near future. At the time of his release from active duty Dr. Paige held the rank of Commander in the Navy Medical Corps.

Dr. John R. Parish has been placed on inactive status after having served three years in the Medical Corps of the Navy and plans to resume his practice in Grinnell on December 1. Dr. Parish held the rank of Commander at the time of his release.

Dr. John Parke has resumed his practice in Cedar Rapids after having been on active military duty since February 1941. Dr. Parke, a Major in the Army Medical Corps, spent thirty-four months overseas.

Dr. Paul L. Pascoe has resumed his medical practice in the Carroll Clinic after more than three years of active military duty. Dr. Pascoe, a Captain in the Army Medical Corps, was attached to the Alaskan Division of the Air Transport Command for two years, having returned to the States last summer.

Dr. Vernon W. Petersen, who was associated with the University Hospitals in Iowa City prior to his entry into military service, has received his discharge after more than four years of active duty. He held the rank of Colonel at the time of his release.

Dr. Loira C. Pumphrey has received his discharge from the Army Medical Corps and plans to resume his practice in Keokuk. He held the rank of Major at the time of his release.

Dr. William O. Purdy of Des Moines has received his discharge from the Army Medical Corps after having been on active duty since August 1942. Dr. Purdy, a Major at the time of his release, has resumed his work in the Medical Department of the Equitable Life Insurance Company of Iowa.

Dr. Ivan H. Rarick has returned to Sioux City and plans to resume his practice there in the near future. At the time of his release from active duty in the Army Medical Corps, Dr. Rarick held the rank of Captain.

Dr. Don F. Rodawig has resumed his practice in Spirit Lake following his release from active military duty. Dr. Rodawig, who entered the Army Medical Corps in May 1942, served two years overseas in North Africa and Italy and held the rank of Major at the time of his release.

Dr. Lee E. Rosebrook has resumed his practice in Ames after more than three years of service with the Army Air Forces as a Flight Surgeon. Dr. Rosebrook, a Major in the Medical Corps, spent thirteen months with the First Combat Cargo Group in the China-Burma-India Theater.

Dr. George C. Scanlon has received his discharge from the Army Medical Corps and plans to resume his practice in DeWitt. He held the rank of Captain at the time of his release.

Dr. Eugene E. Smith has been released from active duty with the Army Medical Corps and has opened his office in the Black Building in Waterloo. Dr. Smith was a Major at the time of his release.

Dr. Dean C. Snyder plans to reopen his office in DeWitt about the first of December after having been released from active duty with the Army Medical Corps. Dr. Snyder, a Captain at the time of his discharge, recently returned from the European Theater.

Dr. Glen E. Snyder, who was located in Grimes prior to his entry into military service, has been released from the Army Medical Corps and has established an office in Deer Park, Washington. Dr. Snyder has been on active duty since April 1941 and held the rank of Major at the time of his release.

Dr. William A. Staggs has returned to Iowa City after more than three years of service in the Army Medical Corps. At the time of his release Dr. Staggs held the rank of Major.

Dr. Fred L. Steffey has resumed his practice in Keokuk after having been released from active duty as a Major in the Army Medical Corps. Dr. Steffey was assigned to the European Theater where he served in England and France.

Dr. Irving Sternhill has received his discharge from the Army Medical Corps and plans to resume

his practice in Mason City in the near future. Dr. Sternhill has been on active duty since December 1940 and was stationed in Iceland for fourteen months. He held the rank of Major at the time of his release.

Dr. Frederick J. Swift, Jr., of Maquoketa has received his release from active duty in the Army Medical Corps. He entered military service in January 1941 and served eighteen months in the European Theater. Dr. Swift, a Major at the time of his release, plans to take more postgraduate work in surgery before establishing his practice.

Dr. J. Fred Throckmorton has received his discharge from the Army Medical Corps and plans to resume his practice in Des Moines in the near future. Dr. Throckmorton entered military service in August 1942 and has just recently returned from Europe. He held the rank of Major at the time of his release.

Dr. Robert E. Tinley has received his discharge and has returned to Council Bluffs where he will resume his medical practice. Dr. Tinley, who held the rank of Major at the time of his release, recently returned from the European Theater.

Dr. Hillard A. Tolliver has resumed his practice in Charles City after having been released from the Army Medical Corps and having spent a month at the University Hospitals in Iowa City taking a refresher course. Dr. Tolliver served as a Captain in the European Theater.

Dr. Joseph J. Weyer has returned to Lohrville where he will resume the practice of medicine. He returned from the European Theater in October and at the time of his release held the rank of Captain in the Army Medical Corps.

Dr. Frank A. Wilke, who was located in Woodward prior to his entry into military service, has announced the opening of his office in Perry for the general practice of medicine. Dr. Wilke, a Captain in the Army Medical Corps, recently received his discharge after four and a half years of service, part of which was spent in the China-Burma-India Theater.

Dr. Wendell M. Willett of Des Moines, who has been on active duty with the Army Medical Corps since April 1942, has recently been released from active duty and plans to resume his practice in Des Moines in the near future. Dr. Willett served as a Captain in the European Theater.

Dr. Wilton J. Willett, who practiced in Carbon before entering military service, has now received his discharge from the Army Medical Corps and plans to take over the practice of Dr. James K. Stepp of Manchester on February 1. At present he is taking a refresher course at the State University of Iowa. Dr. Willett, a Captain at the time of his release, has been in service four years, two of which were spent overseas.

Dr. Otis D. Wolfe has received his discharge from the Army Medical Corps and resumed his practice in Marshalltown where he is associated with his father, Dr. Otis R. Wolfe. He has been on active duty since August 1941 and at the time of his release held the rank of Captain.

Dr. Ruth E. Church, who has been Director of the Washington County Health Unit for the past four years, has resigned that position, effective December 1, to accept a similar one in Macomb, Illinois. There she will be the Director of the Public Health Department of two counties, McDonald and Fulton.

Dr. Irving U. Parsons of Malvern has announced his retirement after more than fifty-two years of active practice. He has moved to Omaha where he will make his home with his son, George E. Parsons.

Dr. Benjamin S. Wells, who has been associated with the Marshalltown Medical and Surgical Clinic, has moved to Denver, Colorado, where he will engage in general practice.

Dr. Herbert W. Canfield has retired from the active practice of medicine after thirty-six years of continuous service in Baxter. Dr. and Mrs. Canfield plan to spend part of the winter in Texas but will continue to make their home in Baxter.

Dr. Murry L. McCreedy, who has been located in Ames the past two years, has moved to Washington where he has established an office for the general practice of medicine.

Dr. Cecil R. Smith of Onslow has purchased the office and residence of the late Dr. Joseph A. Hoegen of Wyoming and will practice there after the first of December.

MARRIAGE

Miss Mabel Pullman, daughter of Mrs. Fred T. Pullman of Centerville, and Dr. Eugene J. Boyd of Iowa City, were united in marriage Saturday night, October 13, at the Methodist Church in Centerville shortly after Dr. Boyd's arrival from service in Europe. The couple will be at home in Iowa City where Dr. Boyd is associated with the University Hospitals.

DEATH NOTICES

Eland, Thomas Longley, of Letts, aged sixty-nine, died October 27 following a stroke suffered several weeks previously. He was graduated in 1907 from the State University of Iowa College of Medicine, and at the time of his death was a member of the Louisa County and Iowa State Medical Societies.

Keane, John Lawrence, of Dubuque, aged forty-nine, died suddenly November 3 of a heart attack. He was graduated in 1926 from the Creighton University College of Medicine, and at the time of his

death was a member of the Dubuque County and Iowa State Medical Societies.

Marsh, William Elmer, of Eldora, aged seventy-nine, died November 10 of uremic poisoning. He was graduated in 1891 from the State University of Iowa College of Medicine, and at the time of his death was a member of the Hardin County and Iowa State Medical Societies.

Martin, Hobart Earle, of Clinton, aged sixty-seven, died November 14 following a brief illness. He was graduated in 1901 from the State University of Iowa College of Homeopathic Medicine, and at the time of his death was a member of the Clinton County and Iowa State Medical Societies.

Schmidt, Bernhard Harvey, of Davenport, aged seventy, died November 14 of a heart ailment from which he had suffered for the past eleven years. He was graduated in 1897 from Rush Medical College, and at the time of his death was a life member of the Scott County and Iowa State Medical Societies.

MEDICAL HISTORY OF WAPELLO COUNTY

(Continued from page 499)

Mary (Finn) Worley. Received his early educational training at Independence, Iowa; pre-medical one year at Loyola University, Chicago, and two years at the State University of Iowa. He received the degree of Doctor of Medicine from the State University of Iowa College of Medicine in 1933. Interned at St. Joseph Hospital, Ft. Wayne, Indiana, and practiced medicine in Riverside, Iowa, from 1934 until 1938, when he moved to Ottumwa and opened an office. He entered military service October 15, 1942, serving at Camp Robinson, Arkansas, Camp Shelby, Mississippi, and Camp Young, California. Received an honorable discharge October 23, 1943, at Palm Springs, California, after which he returned to Ottumwa to resume civilian practice. Married Iona Cooney September 5, 1928; has two children.

Frederick Lawrence Nelson, Jr., Capt., M.C., A. U. S., Ottumwa, was born June 14, 1911. Received early education in Ottumwa public schools; pre-medical at Iowa State College and State University of Iowa. Received degree of Doctor of Medicine from Temple University School of Medicine, Philadelphia, in 1936. Located in Ottumwa in 1938. Entered military service August 12, 1942, at Des Moines, with the rank of First Lieutenant; was promoted to Captain March 9, 1943. Served with 137th Field Artillery Battalion in North Africa. Received honorable discharge August 17, 1945, after serving at Regional Hospital, Camp Crowder, Missouri, and O'Reilly General Hospital, Springfield, Missouri. Married Helen Durkin, Bogota, New Jersey, in 1937; has two children.

(Continued next month)

